The Economist

MARCH 15TH–21ST 2003

www.economist.com

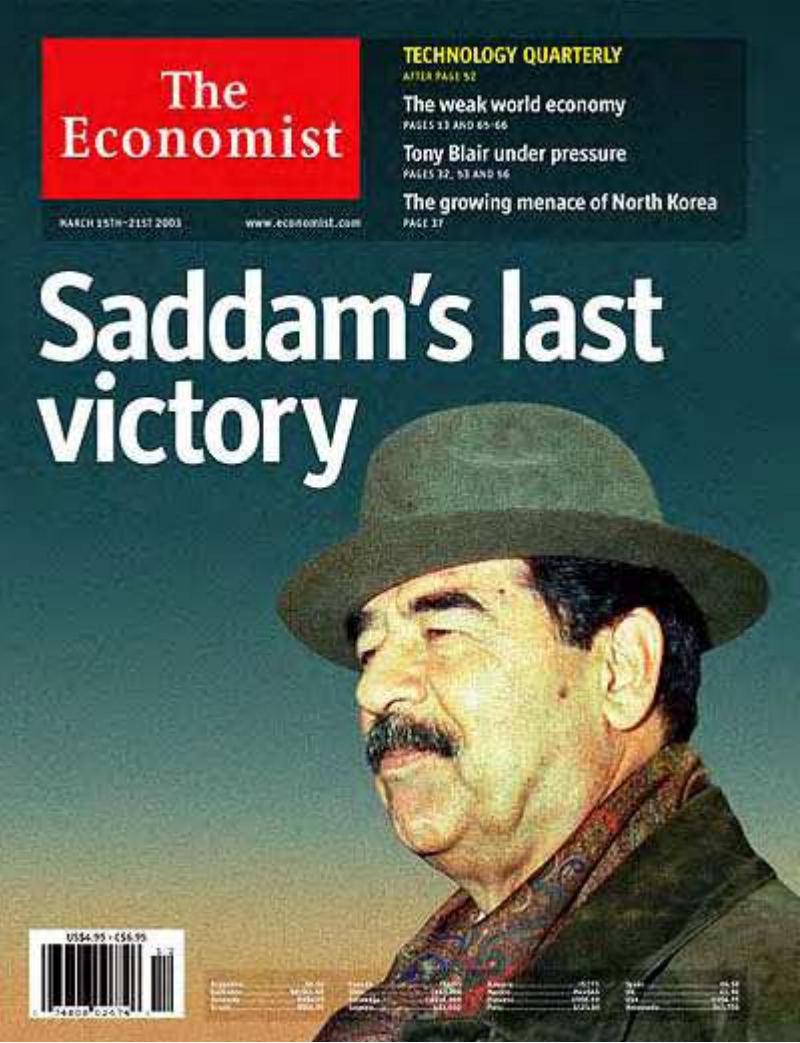
TECHNOLOGY QUARTERLY
AFTER PAGE 52

The weak world economy
PAGES 13 AND 65–66

Tony Blair under pressure
PAGES 32, 53 AND 56

The growing menace of North Korea
PAGE 37

Saddam's last victory



US$4.95 • C$6.95

PRINT EDITION

Full contents
Enlarge current cover
Past issues/regional covers
Subscribe

GLOBAL AGENDA

POLITICS THIS WEEK

BUSINESS THIS WEEK

OPINION
Leaders
Letters

WORLD
United States
The Americas
Asia
Middle East & Africa
Europe
Britain
Country Briefings
Cities Guide

SURVEYS

BUSINESS
Management Reading
Business Education
Executive Dialogue

FINANCE & ECONOMICS
Economics Focus
Economics A-Z

SCIENCE & TECHNOLOGY
Technology Quarterly

PEOPLE
Obituary

BOOKS & ARTS
Style Guide

MARKETS & DATA
Weekly Indicators
Currencies
Big Mac Index

DIVERSIONS

RESEARCH TOOLS

CLASSIFIEDS

DELIVERY OPTIONS
E-mail Newsletters
Mobile Edition
RSS Feeds

ONLINE FEATURES
Cities Guide Go
Country Briefings Go
Audio interviews Go
Classifieds Go

The Economist Group
Economist Intelligence Unit
Economist Conferences
The World In
Intelligent Life
CFO
Roll Call
European Voice
EuroFinance Conferences
Economist Diaries and Business Gifts

Advertisement

Print Edition March 15th 2003

Saddam's last victory
It is time to make last mean last ... More on this week's lead article

The world this week

Politics this week
Business this week

Leaders

Iraq
Saddam's last victory

Settling Cyprus
What a waste

Derivatives
Off target

World economy
Bearing down

Letters

On George Bush and the Middle East, Bolivia, India, Tyco, investment banks, English

Special Report

Dealing with Iraq
Very well, alone

The coming war
Into the breach

Iraq's oilfields
Call the hellfighters

Asylum
A strange sort of sanctuary

United States

The national mood
We shall overcome

Conspiracy theories
Lindbergh lives

A labour dispute on Broadway
Life's the pits

Shamateurism in sport
Georgia in my wallet

The budget fight in Massachusetts
The slasher flashes his blade

Lexington
The odd couple

The Americas

Canada and the United States
The awkward couple

Quebec's election
Landry bites back

Politics in Mexico
Defeat, sort of

Security in Venezuela
A lack of clarity on terror

Cuba and the EU
Wary partners

Asia

North Korea
Expecting trouble?

China
Car-crazy

Australia and East Timor
A squabble over oil

Bangladesh's NGOs
Being well-meaning is no protection

Health care in Japan
Up go the doctors' bills

Indian politics
Uttar nonsense

Middle East & Africa

Previous print editions
Mar 8th 2003
Mar 1st 2003
Feb 22nd 2003
Feb 15th 2003
Feb 8th 2003
More print editions and covers »

Subscribe
Subscribe to the print edition
Or buy a Web subscription for full access online
RSS feeds
Receive this page by RSS feed

Technology Quarterly

OPINION
Launching Telecoms II

MONITOR
Unfixing fixed wireless

MONITOR
Turnaround for wind power

MONITOR
Flu shots for computers

MONITOR
Will parallel chips pay off?

MONITOR
A bug's life for robots

MONITOR
Waste not, want not

BIOTECHNOLOGY
The quest for the protein chip

THE INTERNET
The revenge of geography

CASE HISTORY
Beyond the nanohype

CHEMICAL ENGINEERING
Bugs as catalysts

SEMICONDUCTORS
Feeling the heat

REPORTS
Little squirt

LAST WORD
The wizard of small things

Business

Geopolitics and business
The dangers of war

Hostile environment training
Fun with the SAS

Ford Motor Company
Junkyard blues

Steel
Corus of disapproval

Expensing share options
Now for plan B

Business in South Korea
Chaebol trouble

British corporate governance
Hating Higgs

French corporate governance
Independent? Moi?

Face value
The unrepentant oilman

Special Report

The world economy
Horror stories

Finance & Economics

Terrorist finance
The iceberg beneath the charity

Derivatives
Buffetted

Collateralised debt obligations
Toxic waste

India and gold

A city prepares for war
Iraqis await the inevitable

Palestinian politics
An alternative Mr Palestine

Hizbullah's new video game
Jihad in cyberspace

Iran and Russia
Whom to hug, if not the bear?

Africa and America
Feeling America's fly-whisk

Europe

Serbia's prime minister assassinated
The tremors of Balkan history

The International Criminal Court
Soon it will be dispensing justice

France's diplomacy
Against America? Moi?

Turkey's new prime minister
Trouble, trouble, trouble

A murder in Bulgaria
The richer they are...

Charlemagne
Still sclerotic, after all these years

Britain

Countdown to war
Fighting on the beaches

Anti-Americanism
Over here

Asylum-seekers
The Albanian solution

Libel
Shuddup

Tourism
The absent Americans

Taxation
Blame Whitehall

Crime
Beggar off

Bagehot
Life after Tony

Articles flagged with this icon are printed only in the British edition of *The Economist*

Foreseeing the future

M-commerce
Phone me the money

Hedge funds in Germany
Hans-come-lately

Economics focus
Revitalising old Europe

The Marjorie Deane internship

Science & Technology

Tropical forests
Not out of the woods

Evolutionary psychology
Pro bono publico

Early humans
Footprints in the ash of time

Mining and microwaves
Rock on

Books & Arts

New fiction
Love's orbit

American gamblers
How they made their luck

Masturbation
One and only

New films
Monty's wake

The Academy Awards
Screen calculus

China's great Oscar hope
Best foot forward

Obituary

Robert Merton

Economic and Financial Indicators

Overview

Output, demand and jobs

Prices and wages

GDP per person

Money and interest rates

The Economist commodity price index

Stockmarkets

Trade, exchange rates and budgets

Stockmarket turnover

Emerging-Market Indicators

Overview

Currencies against the dollar

Economy

Financial markets

Advertisement

Classifieds

Jobs
Governance Fellow on Security and Development (Ref 159)
This is an exciting opportunity to join one of the world's ....

Business / Consumer
WSI Internet - Start Your Own Business
Business Opportunity - WSI Internet Start Your Own Busines....

Tenders
Requests Expressions of Interest for The Development of a New Lignite Mining Facility and Associated New Electric Generating and Transmission

Jobs
Marketing Associate Needed
Marketing Associate Provide analytic support to the Global Product Strategy Group Respo....

Tenders
Republic of Ghana Ministry of Trade, Industry, PSD & PSI - Request for Expression of Interest: Preparation of Competition Bill for Ghana

Jobs
Regional Director Balkans
Job Profile Our Regional Director Balkans (based in Tirana), leads and mobil....

Sponsors' feature About sponsorship »

Copyright © The Economist Newspaper Limited 2006. All rights reserved. Advertising Info | Legal disclaimer | Accessibility | Privacy policy | Terms & Conditions | Help

Produced by = ECO PDF TEAM =
Thanks xxmama

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Politics this week

Mar 13th 2003
From The Economist print edition

The war of words

Reuters

Diplomatic wrangling over a **war with Iraq** raged unabated. Jacques Chirac, the French president, said he would veto a second United Nations resolution authorising war “no matter what the circumstances”, and Russia agreed. The Security Council's undecided countries, despite horrendous arm-twisting, continued to sit on the fence.

See article: War without compromise

Britain, attempting to break the **stalemate**, set out six new conditions for Saddam Hussein, to meet: they included a public confession of guilt, the surrender of anthrax stocks and the destruction of all banned missiles. Iraq said a pilotless plane, which America asserted could drop chemical or biological agents, was only “a research project”.

See article: Rifts over Iraq

Relations between **London and Washington** were rocked when the American defence secretary, Donald Rumsfeld, said that Britain's role in an attack was “unclear”, and that British troops might not be used in the opening phase. He later retracted. Some interpreted his remarks as a clumsy attempt to help Britain's prime minister, Tony Blair, who was faced with rebellion in his cabinet.

See article: Tony Blair and the war

Turning up the heat

North Korea's decision to restart a nuclear reactor and to buzz an American spy plane were “worrisome” events, the United States said. The North tested two missiles. An administration official said that the North was only months away from being able to produce nuclear-weapons-grade material by enriching uranium. UN officials said that the North would run out of food by June unless more aid was provided.

See article: The North Korean nuclear crisis drags on

A Pakistani politician said that **Osama bin Laden** had been captured, prompting a brief rise of the dollar against the euro. Pakistan and the United States denied the claim.

Papua New Guinea is on the brink of economic collapse, according to the Centre for Independent Studies, an Australian think-tank. It said that as a failed state it could become a base for terrorists.

Brigadier-General Noer Nuis was sentenced to five years in jail by an Indonesian court for failing to prevent massacres of civilians in **East Timor** in 1999. He was the highest-ranking Indonesian officer to be convicted of offences in East Timor during its struggle for independence.

China banned the Rolling Stones from playing “Let's Spend the Night Together” and three other of their more salacious numbers at concerts in Beijing and Shanghai in April.

A new Mr Palestine

Mahmoud Abbas was appointed to the new post of prime minister of the **Palestinian Authority**. He will run the day-to-day affairs of government, including security and public order, but will remain answerable to the president, Yasser Arafat. Hamas, the Palestinians' Islamist group, denounced the creation of the job as a response to “US-Zionist pressures”.

See article: A Palestinian prime minister

Côte d'Ivoire swore in a new prime minister, Seydou Diarra, as rebel groups and leading political parties prepared to form a coalition government as part of a French-brokered peace deal aimed at ending nearly six months of civil war.

Uganda's government announced a ceasefire with the Lord's Resistance Army, a cultish band of rebels who often forcibly recruit children, to allow for peace talks.

Nigeria's parliament considered the repeal of an anti-corruption law, under which no senior officials have yet been convicted.

Brief encounter

A federal judge in New York reaffirmed his order that Jose Padilla, the so-called **dirty bomber**, be allowed to see his lawyer despite the government's vehement objections. But a federal appeals court in Washington, DC, agreed with the government that the 650 detainees in Guantanamo Bay, Cuba, have no right to challenge their detention in American courts.

Russia agreed to shut down its last three **plutonium-producing reactors**. In return, the American taxpayer will fund new non-nuclear energy plants.

AP

Broadway theatres in New York reopened after a strike by musicians, who made a song and dance about a reduction in the minimum size of house orchestras. It cost the tourism industry $10m in just four days.

See article: A strike ends on Broadway

The banned plays on

Turkey got a new prime minister, Tayyip Erdogan, leader of the governing Justice and Development Party. He had been banned from standing for parliament last autumn because of a previous conviction for allegedly fomenting religious hatred. But a by-election on March 9th gave him back a seat, following a constitutional amendment to end the ban.

See article: Trouble for Turkey's new prime minister

Hopes of a last-minute peace deal in **Cyprus** collapsed. The UN had pushed for its plan for reunification to be put to both communities in referendums. No, said the Turkish-Cypriot leader, Rauf Denktash. The UN said it would give up trying. Only the Greek part of the island will, in practice, join the EU next year; and the EU warned Turkey that its own hopes of negotiations on membership were at risk.

See article: Breaking the stalemate over Cyprus

In **Malta**, a referendum on EU membership produced a 53.6% vote in favour, in a turnout of 91%. The Nationalist Party prime minister, Eddie Fenech Adami, called a general election for April 12th. Next similar referendum: in Slovenia, on March 23rd.

Serbia's prime minister, Zoran Djindjic, was assassinated outside the parliament in Belgrade. His death will make the country's increasingly turbulent politics even more so.

See article: Emergency in the Balkans

Ilya Pavlov, a controversial tycoon widely thought the richest man in **Bulgaria**, was shot dead by

unknown assailants.

See article: A millionaire murdered in Bulgaria

Fox in a hole

A setback for **Mexico's** president, Vicente Fox. In local elections in the state of Mexico, seen by some as a pointer to crucial legislative elections in July, his conservative National Action Party lost some ground to opposition parties of the centre and left.

See article: Pointers from a local election

Bernard Landry, **Quebec's** premier, called a general election in Canada's second-most-important province. His pro-independence Parti Québécois is seeking a third-successive term, a feat not achieved since the 1970s.

See article: Quebec's election campaign

Venezuela's economy, hit by political conflict between President Hugo Chávez and the opposition, could shrink by more than 40% in the first quarter of this year, according to a forecast by BBVA, a Spanish bank.

See article: The Venezuelan connection

Uruguay began consultations with investors on a “market-friendly” restructuring of up to $3 billion of its public debt.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

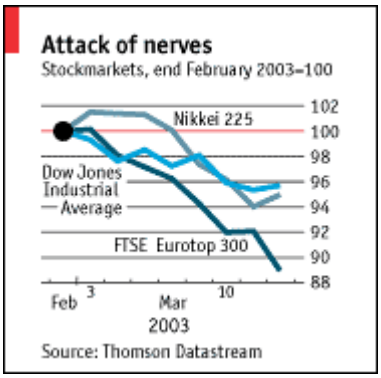
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Business this week

Mar 13th 2003
From The Economist print edition

War jitters



Heightened fears of a war in Iraq hit **stockmarkets** around the world. Japan's Nikkei 225 fell to a 20-year low; Britain's FTSE 100 hit its lowest point since mid-1995. The Dow Jones Industrial Average was relatively buoyant, at only a five-month low.

See article: The world economy

Japan announced new measures to prop up its stockmarket by easing share buy-backs and dampening short-selling.

The International Energy Agency reported grim news about **oil supplies**. It estimated OPEC's spare capacity at only 900,000 barrels a day; Iraq produces nearly double that. Supplies might cease in the event of conflict. ChevronTexaco stopped shipping Iraqi oil, fearing war and bad publicity at home. Other oil firms seem sure to follow.

See article: Will Saddam Hussein sabotage his oil wells?

AMR, the parent company of American Airlines, suffered a 34% fall in its share price in one day and **Delta Air Lines** a 22% drop as investors fretted about the effect of a war on air travel. AMR may be unable to avoid Chapter 11 bankruptcy if business does not revive.

Employees of **United Airlines** lost a controlling interest in the company after share sales took their stake below 20%. The employee-ownership scheme gave workers veto power through three board members with 55% of the voting rights. United is struggling to find a way out of Chapter 11 bankruptcy.

Deutsche Telekom's shares fell by 9% after it announced a loss of *euro*24.6 billion ($23.2 billion) for 2002, a record for a German company. Writing off the value of assets bought during the boom cost some *euro*20 billion. Investors also expressed concern that the company had cut debt by only *euro*3 billion, to *euro*61 billion.

Reverse engineering

Alstom's share price plunged by 50% in a day, after the French engineering firm announced the departure of its chief executive, the sale of a key part of its business and a stepping-up of its cost-cutting plans. The company also forecast big losses this year. More swingeing job cuts are likely.

Corus may lay off some 3,000 workers in Britain, after the Dutch arm of the Anglo-Dutch steelmaker vetoed a plan to sell its aluminium division to France's Pechiney for *euro*750m ($827m). The firm's shares fell by 64%. Corus's management failed in a legal bid to reverse the Dutch decision. Bankruptcy or break-up now loom.

See article: Corus, a troubled steel company

Gas Natural, Spain's leading gas company, offered some *euro*15 billion ($17 billion) for **Iberdrola**, the country's biggest electricity firm, despite misgivings voiced by big shareholders in both firms. Iberdrola termed the bid both hostile and insufficient. Gas Natural had tried and failed to swallow Iberdrola in 2000.

Shareholders rejected a plea by Hugh Osmond to take more time to consider his £5.6 billion ($9.0 billion) offer for **Six Continents**. Instead, they approved a demerger of the pub and hotel chain, though many now expect more bids for either the whole group or its separate parts. Mr Osmond abandoned his own bid.

Wella's second secret suitor was unmasked. **Henkel**, a German consumer-goods company, revealed that it had bought a 7% stake in Wella over an extended period. Procter & Gamble is also rumoured to be ready to make an offer for the hair-care company.

VW in the slow lane

Volkswagen's engine sputtered. Europe's largest carmaker gave warning that profits in 2003 would not match those of last year, because of a combination of softening demand and a strong exchange rate. VW promised cost-cutting and new models to revive its fortunes in 2004.

Ford's senior bosses embarrassed the company's chief operating officer, Sir Nick Scheele, by forcing a review of his decision to award the car company's entire advertising and marketing programme to one agency, Britain's WPP. But WPP is sure to keep the bulk of the work; the world's leading ad agencies already have strong relationships with competing carmakers.

See article: Ford's precarious finances

Korean cooking

The exclusive grip on big accounting scandals by European and American companies was loosened by **SK Group**, South Korea's third-largest *chaebol*. Ten managers, including the chairman, were charged with manipulating share prices and fraud, relating to 1.5 trillion won ($1.2 billion) of inflated profits at a subsidiary.

See article: Corporate trouble in South Korea

Sam Waksal, former chief executive of **ImClone**, settled some of the civil charges brought by the Securities and Exchange Commission over insider dealing. He will pay a $800,000 fine and be banned from ever running a public company again. Mr Waksal has pleaded guilty to related criminal charges and will be sentenced in May.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Iraq

Saddam's last victory

Mar 13th 2003
From The Economist print edition

It is time to make last mean last

Get article background

THERE can be no doubt as to which person is drawing the most pleasure from the divisions and disarray among the countries of the West over how to deal with Iraq, and that is the tyrant in Baghdad. Last September, when President George Bush declared that he would work through the United Nations in order to deal with a man who had flouted 16 UN resolutions in the previous 12 years, even Saddam Hussein may not have expected that six months later he would have achieved so much while conceding so little. For a man whose lifelong ambition has been to become the central figure of the Arab world, this must be a happy moment.

More even than that, he has become a figure around which great global debates are swirling. The transatlantic alliance, the cornerstone of western security since 1945, looks in deep trouble. There is talk that France, Russia and China might, in effect, be forming a coalition to counter the apparent ambitions of the world's sole superpower, the United States. The future role and shape of the United Nations itself is at issue, as well as the status of international law. So are the role and shape of the European Union, and the future course of American foreign policy. Tony Blair, who until a few weeks ago seemed to be Britain's most powerful and secure prime minister for a century, suddenly looks as if he could lose his job. As Saddam is reputed to love poetry, he may now be reciting Shelley: “My name is Ozymandias, King of Kings, look on my works, ye mighty, and despair.”

The case for war

Shelley's poem, though, was a poignant one, about how a tyrant's ambitions, carved on a pedestal, become a broken wreck. That is what now needs to happen to Saddam Hussein. Last November, Mr Hussein was presented with a demand from the UN Security Council, in its Resolution 1441, that he should comply immediately with its terms and (in particular) with those of its Resolution 687 from 1991, which had laid down conditions for a ceasefire in the Gulf war. He was given 30 days to provide a full and accurate declaration of all his stocks and programmes of weapons proscribed in that 1991 resolution; any falsehood or omission from that declaration would mean that he was in “material breach” of the resolution. Mr Hussein had a choice: comply; or try to get away with not complying. Every report from the chief UN weapons inspector, Hans Blix, since that 30-day deadline expired has confirmed that he chose the latter. He calculated, correctly, that he could thereby sow division within the Security Council,

just as he did when evading Resolution 687 during the 1990s. He has given up merely a handful of missiles, a few empty chemical warheads and (most recently) an undeclared unmanned aircraft. He has not had to account for, let alone relinquish, any of his stocks of biological and chemical weapons.

This calculating man is also, though, prone to grave miscalculations, just as when he invaded Kuwait in 1990. Then, too, he sowed division, even to the point that France argued that some of his demands should be acceded to as the price for his peaceful withdrawal. Now, once again, he has surely miscalculated. His short-term success is going to lead to war, very soon. And so it should.

Many millions of people, and quite a number of governments, are understandably fearful of such a war. Some do not feel convinced by the case for it, at all; many, though, think more time should be devoted to using the process of inspections to persuade Saddam to comply before war is used, as a last resort. That is why, as *The Economist* went to press, discussions were under way about giving him a new ultimatum, with specific demands, that he would be asked to meet during the next few weeks. The trouble is that this will just invite him to repeat his past success, by using minimal concessions to cause maximal division and confusion. He was given a last chance, by the Security Council's unanimous vote in November. Four months later, there can be no reasonable doubt that he chose not to take it, and will seek to do so again.

No war should be entered into lightly, or hastily, or on a slender pretext. In this case, however, none of that applies. The ceasefire resolution (687) of 1991 was an attempt to lighten the deadly effect of war by using persuasion and containment to change Saddam. Yet 12 years have passed, and the effort has failed. This is a tyrant who has, it should be recalled, invaded Iran and Kuwait and attacked Saudi Arabia and Israel; and one who signed weapons-non-proliferation treaties but then broke them. His word cannot be trusted, and he is a proven threat to his region. Bombings by American and British aircraft, several times a week during all those 12 years, have prevented him from trying any more invasions. But they have cost many Iraqi lives, as have the economic sanctions imposed by the UN since 1991: 360,000 prematurely dead children, on a conservative estimate; more than 700,000 according to the UN itself. That siege of Iraq has deepened the hatred of the West felt by many Arabs, and has featured high on Osama bin Laden's lists of grievances. It is one of the swamps within which terrorism is being bred. Yet Saddam Hussein still has his weapons, and his ambitions.

Some say that this is hypocrisy: that America has weapons of mass destruction and so, for example, do Pakistan and India, so why should Saddam be singled out? The answer is that dangerous weapons are much more dangerous when in the hands of dangerous people. It was a terrible mistake when French, German and American companies were allowed to sell Mr Hussein some of those weapons during the 1980s, but that mistake is not a reason to make another one now. He has used chemical weapons against Iran and against his own people. It would be reckless to assume that he would not use biological or nuclear weapons in the future. He must be prevented from doing so.

Others fear the effects of a war on political stability in the region. A war will not magically bring peace, democracy and prosperity, certainly not overnight. What, though, by contrast, are the effects of Saddam on that stability? Without him, or another hostile regime in Iraq, Iran would feel less need to pursue its own weapons programmes. Israel too would feel less threatened. American and British aircraft would no longer need to be based provocatively in Saudi Arabia, Qatar and elsewhere. Among Iraq's neighbours, Kuwait is a keen supporter of war while both Saudi Arabia and Jordan are plainly reconciled to it and keen to see the back of Saddam. Some of those in the region, in other words, think change would be better than leaving things as they are. The worst outcome for the Arab neighbours would be for the agony to be prolonged, either by more months and years of delay or by a retreat.

That would also be the worst outcome for the 25m Iraqis themselves. Their interest seems barely to be considered in the debate over this war. Yet they offer one of the most powerful arguments in its favour. For them, containment has been deadly, and so has Saddam Hussein. He, his family and his forces have ruled Iraq by terror, maiming, torturing and killing hundreds of thousands of people, while ruining the lives of many millions more. Again, the critics ask, why single out Saddam when the world is full of human-rights abusers? To which the answer, first, is that he is clearly one of the very worst; and, second, why not? If you cannot deal with all mass murderers, should you therefore deal with none of them?

Brickbats all round

The case for war is strong. Mr Hussein is not disarming. Further delay will play into his hands. He has

violated 17 supposedly mandatory UN resolutions. He is a proven threat to regional stability and too dangerous to be allowed to have the world's deadliest weapons; a regime change in Iraq would be likely to make the region more stable, not less, even if dangers would remain. And it would bring new hope to 25m Iraqis.

If the case is so strong, why then has the Security Council found it so difficult to agree? In reality, the division is not all that wide: both the French camp and the American one agree that Saddam is a terrible man and must be disarmed. They disagree about how, and how quickly. Mr Hussein's brilliance is that from such a narrow difference he has created so much bitterness and disarray. He cannot take all the credit, however. Western politicians and diplomats deserve to share it.

America has made two big diplomatic blunders, along with many minor ones. The Americans did not need, technically, to provide clear evidence that Iraq still possesses weapons of mass destruction, for Resolution 1441 laid the burden of proof on Iraq. But politically they did need to, especially to convince public opinion and to help other governments to support them openly. They have failed, so far, to provide it. Their second big blunder has been to leave so much doubt in the air about what they might do in other parts of the world after removing Saddam in Iraq. It may be good to keep options open, and honest to avoid having later to contradict previous denials. Yet, combined with talk of “pre-emptive” strikes, this has left many people worried that a war in Iraq could be just the first of many. So they have been left feeling that they should oppose the one, so as not to encourage the many.

France, on the other hand, has also blundered. Perhaps to please America, it signed up to Resolution 1441 last November, and at the time French diplomats said (off the record) that if Saddam did not comply there would not need to be a further resolution—though France was careful to emphasise that in that event the initiative should remain with the Security Council, advised by the weapons inspectors. But since then, officially and privately, it has acted as if Resolution 1441 had put the burden of proof on the inspectors, or the Americans, rather than on Iraq. President Jacques Chirac added to this inconsistency by meting out abuse to European countries siding with America. France also took the grand, and inevitably provocative, position that at issue was not just the specific case of Iraq but also the general question of American power and of who makes decisions in world affairs: “unilateralist” Americans or a “multilateralist” body? That was hardly diplomatic, nor designed to bring about unity.

A new world order?

Once Saddam has gone, the need will be for both sides of this diplomatic divide to be magnanimous. They may have disagreed about the means, both should say; but they are now going to work together to make the end secure, which must mean a more stable and prosperous Middle East. Since France will not want to be left in the cold and America does not like to bear burdens alone, some form of reconciliation must be likely. That is also so within the European Union, where Britain and France will both be keen to patch things up. What, though, might it mean for the United Nations and the future course of international affairs?

Two myths have taken hold in the course of this debate. One is that by not ceding sovereignty to the Security Council America, Britain and other allies would thereby be destroying the multilateral system of an international rule of law that was set up in 1945. Another is that somehow the Security Council confers legitimacy on international decisions in the same way as a national parliament does for domestic ones.

Yet no such system has ever operated, thanks largely to the reflexive vetoing used by the Soviet Union during the cold war. The Security Council has authorised the use of force on just three occasions: Korea (1950), Iraq (1991) and Afghanistan (2001). All other wars and interventions have occurred, rightly or wrongly, outside the UN's purview. America is now accused of unilateralism by virtue of its threat to bypass the UN if necessary. Yet it is being supported by, among others, Britain, Spain, Italy, Australia, Japan, Kuwait and ten countries from central and eastern Europe. The Security Council, by contrast, may have the backing of the 1945 UN Charter, but it consists merely of 15 countries, among whom three—Britain, France and Russia—hold permanent, veto-wielding seats yet plainly are a lot less important in 2003 than they were in 1945. By no stretch of the imagination can it really be seen as a proxy world parliament.

Nor will such a thing be created in the foreseeable future. Nevertheless, whatever actions it may wish to take, the United States will need friends and allies. Even the sole superpower is not powerful enough to deal with all the world's problems, or even with all the threats posed to its own interests. It will need

forums within which such alliances can be formed and made reliable. Its allies, meanwhile, will want, through such forums, to ensure that their voice is heard and their interests protected. One of those bodies is likely to be the Security Council, but its voting system, vetoing powers and membership would need to change before it could hope to become effective. Another will be NATO, but it too is going to have to search its soul. And, separately, the European Union will need to use the lessons of its unseemly divide over Iraq as a guide to how and when it should seek to form united policies in future—which will need to be reflected in the new European constitution.

All that, though, is a grand agenda for the rest of the decade. For the rest of this month, another task looms: to secure a final defeat for Saddam Hussein.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Settling Cyprus

What a waste

Mar 13th 2003
From The Economist print edition

The collapse of talks to reunite the island marks a stupidly missed opportunity

Get article background

OVER the years it has been hard to apportion blame for the failure of the divided island's Greek and Turkish leaders to strike a deal to give their people security and prosperity in a loosely federal but reunited Cyprus. Recently, under the blandishments of the United Nations and the European Union, they had come within finger-touching distance of a settlement. All the sadder, then, that this week the Turkish-Cypriots' truculent leader, Rauf Denktash, rejected the UN's sensible proposals for a deal. The government in mainland Turkey must also share blame by failing to bludgeon Mr Denktash into accepting the plan. A further gloomy outcome is that, while the island's Greek-run part will almost certainly join the EU on its own next year and the Turkish part will fester in isolation and poverty, mainland Turkey's own hopes of starting negotiations to join the Union have been dented too.

Both of the island's communities had a lot to gain. The Turks would have given back control of around 8% of the island's territory to the Greeks—a substantial chunk of the land taken in 1974 when the Turkish army intervened after a short-lived Greek-Cypriot coup on the island. The Turks, 18% of the population before the invasion, have since held 37% of the land. The Greek-Cypriots' new president, Tassos Papadopoulos, at first complained that the latest UN compromise did not adequately address his people's grievances. But he wisely accepted it. This time it is overwhelmingly Mr Denktash's fault that a settlement has been blocked.

Indeed, the Turks had even more to gain than the Greeks. They would have kept a vast amount of autonomy in their still disproportionately large zone. They would have enjoyed an influx of EU cash had the whole island been joining the Union next year, not to mention the rapid lifting of sanctions long imposed by the EU against their breakaway statelet.

The Turkish government may have been too preoccupied by the political wrangling and tortuous diplomacy over Iraq (see article). Many of Turkey's still-too-influential generals see the Turkish-run bit of Cyprus as a strategic asset, while some Turkish politicians regard the island as a bargaining chip in Turkey's quest to join the EU. They are wrong. Turkey's failure to persuade Mr Denktash to say yes to compromise will make it much harder for the EU to smile on its application, due for consideration at the end of next year, to start negotiations to join. Many governments are already queasy about the idea of Turkey as a fellow Euro-club member,

What next?

The UN's secretary-general, Kofi Annan, had suggested a ruse to force Mr Denktash's hand and to strengthen that of the Greek-Cypriots' leader by holding a referendum on the proposals next month—on both sides of the island. Both communities would probably have said yes. But Mr Denktash wrecked that idea too. If stalemate prevails, as seems likely, Mr Annan says he will abandon all further efforts to settle Cyprus during his time as UN boss. It would then be up to the EU to reopen proceedings. By the end of this year the Turkish-Cypriots are due for a general election. Mr Denktash's opponents on his own side of the island, who approved of Mr Annan's plan, may well take power in parliament but the presidential term has a few years yet to run. One day, perhaps mercifully soon, the ailing Mr Denktash will go. Then, maybe, a fair deal can at last be done. But a golden chance has been stupidly wasted.

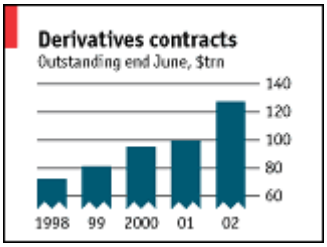
Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Derivatives

Off target

Mar 13th 2003
From The Economist print edition

Warren Buffett's attack on derivatives misses the point



HARD times make for bad judgment. Whenever financial markets are under stress, as they are today, somebody shows up with a big loss from derivatives trading—and a call for tough new regulation invariably follows. Such notable cases as Procter & Gamble, Gibson's greeting cards, Metallgesellschaft, Orange County and Long-Term Capital Management have now been joined by the sage of Omaha himself, Warren Buffett. In his latest letter to shareholders, Mr Buffett laments long-term derivatives losses in a subsidiary that he is trying to close, General Re Securities. Mr Buffett harrumphs that derivatives are dangerous timebombs: he even calls them financial weapons of mass destruction.

There is no disputing that derivatives—in essence, contracts such as futures or options, usually linked to a financial variable, that trigger payments at some future date—are increasingly complex, nor that top bosses often fail to grasp the risks they involve. It is equally clear that regulators and investors are often in the dark about an institution's total exposure through its derivatives book. And there may be particular reasons to fret about credit derivatives. Not only do these often give rise to legal disputes; they also seem to have led, not to a beneficent spreading of credit risk among many, but to its dangerous concentration in a few banks and insurers. Regulators, rating agencies and investors are right to be wary of these institutions' use of credit derivatives (see article).

But it is a giant leap from expressing such worries to concluding that derivatives are dangerous weapons that should be avoided altogether. The rapid growth of derivatives—some $128 trillion of over-the-counter derivatives were outstanding in June 2002, a 28% increase over a year earlier—has, in general, made the financial system, and hence the global economy, safer not riskier. The growing use of derivatives to spread risks to those best able to take them is one of the main reasons why, despite the financial turmoil of the past few years, there have been few bankruptcies among big financial institutions.

Indeed, as Alan Greenspan, the Fed chairman, observed after Mr Buffett's attack, what is striking is how few companies have traded in derivatives, not how many. Less than half of America's top 1,000 companies have ever used derivatives, and only the biggest 5% of the country's banks. The use of credit derivatives, which Mr Greenspan describes as particularly effective risk-management tools, is restricted to a mere 0.2% of American banks. Contrary to Mr Buffett's view, the world would gain from more, not less, use of derivatives.

If derivatives trading deserves to be encouraged, however, it also needs to be better monitored. Disclosure of derivatives positions is murky at best; and arguments persist about their correct accounting treatment. The really worrying news this week was not Mr Buffett's misplaced attack; it was the pressure from the French and Germans, whose banks may have excessive exposure to credit derivatives, to get the European Commission to back away from an international accounting standard that would require banks to mark their derivatives books to market. By forcing banks to provide against probable changes in future payments when derivatives contracts turn sour, this standard would alert investors to future risks.

Fuller disclosure and more accurate accounting for derivatives are both appropriate and urgently needed. But to allow a few angry loss-makers to discourage the wider use of these valuable instruments would be dangerous indeed.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

World economy

Bearing down

Mar 13th 2003
From The Economist print edition

The case for pre-emptive policy action

EPA

TUMBLING stockmarkets and gloomy economic headlines have become wearily familiar in the three years since the stockmarket bubble burst. This week, markets celebrated the anniversary of the NASDAQ stockmarket peak by lurching to fresh lows. Investors were unnerved not only by worries about prospective war with Iraq, but also by new evidence that America's economy is sputtering again. How should policymakers respond?

America's Federal Reserve has to make its decision when its open-market committee meets next week. Some economists argue that, since the present weakness in American confidence and spending is largely due to uncertainty about the consequences of a war with Iraq, it might be better to hold fire for now and see what the economy looks like once the conflict is over. If the war goes well and the economy rebounds afterwards, an interest-rate cut may be unnecessary. Even if the economy remains weak, they argue, a rate cut then will be more effective than it would be now, when it is likely to be swamped by dismal headlines about war. With interest rates already as low as 1.25%, the Fed should save its ammunition.

This argument is wrong, for two reasons. First, at a time of heightened uncertainty, it is wiser to take out an insurance policy against a future deep downturn. If a rate cut proves unnecessary, the cost of reversing it would be small. On the other hand, if the American economy remains weak, valuable time will have been gained in giving it an extra boost. When the world economy is groaning with spare capacity, there is little risk that any excessive easing of policy might send prices soaring. A greater risk is of deflation, not inflation. The lesson of Japan's failure to arrest deflation after its bubble burst in the early 1990s is that, as interest rates approach zero and the risk of deflation rises, a central bank should cut rather sooner than it might otherwise. Once deflation sets in, monetary policy can do little to pull an economy out of a slump.

A second argument is that today's weak demand is not entirely due to worries about war with Iraq in any case. A large part of it reflects the fact that households and companies are only halfway through purging the excesses of the bubble years (see article). Even without any fallout from a war, the economy is in need of some help.

Europe's cold bath

The European Central Bank should also do more. Last week's quarter-point cut was not enough to offset the tightening of monetary policy caused by the rise of the euro since the ECB cut rates in December 2002. Policy has, in effect, been tightened, even as economic prospects have worsened.

Fiscal policy has also been tightened in the euro area this year, as many governments, such as Germany's, have been forced to raise taxes or cut spending in order to meet the rigid rules of Europe's stability and growth pact. Americans love to castigate euro-area governments for such folly, yet the United States has its own perverse fiscal incentives. At least half of America's federal budget stimulus this year could be offset by a fiscal tightening by state governments, which are required by their constitutions to balance their budgets even if a downturn is reducing revenues. In Japan, too, the budget deficit is due to shrink on a cyclically-adjusted basis this year. The combined fiscal stance of America, the euro area and Japan is this year likely to be mildly contractionary.

In such fragile times, especially when the room for interest-rate cuts is so small, policymakers would be extremely unwise to stick blindly to rigid budget rules if that means increasing taxes or slashing spending. Governments everywhere should certainly fret about their long-term fiscal health, not least because of future pension and health-care costs; but not if it means choking their economies now. Japan has shown graphically how trying to trim a budget deficit when an economy is weak can actually worsen a country's long-term fiscal position. America and Europe must not risk following suit.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Letters

Mar 13th 2003
From The Economist print edition

The Economist, 25 St James's Street, London SW1A 1HG
FAX: 020 7839 2968 E-MAIL: letters@economist.com

Spreading democracy?

SIR – Your enthusiasm that President George Bush is taking "the boldest possible position" of using a vanquished Iraq as a platform for spreading democracy throughout the Middle East is, I fear, bound to lead to disappointment ("Birth of a Bush doctrine?", March 1st). Mr Bush has long scorned "nation-building", let alone region-building. His vision of a democratic Middle East is an afterthought to rationalise a war he long ago determined to fight. If Mr Bush does follow through with a democracy-building programme in post-war Iraq, he will be acting very much out of character.

J.J. Gass
New York

SIR – I am inclined to agree with Mr Bush that Arab and Muslim cultures are capable of sustaining democratic values. Turkey, with its history of Ottoman rule, seems to have adjusted well to democratic government. The challenge for the Bush administration will be to convince Arab and Muslim populations of its sincerity. Once democracy is put in place in Iraq, how much will be done to encourage political reform elsewhere? If the Bush administration works for reform with its less democratically inclined allies, as well as its enemies, the prevalent scepticism in the Middle East might turn to gratitude.

Ismail Kenessy
Bethesda, Maryland

Blameless in Bolivia

SIR – You say that a government spokesman laid the blame for the recent bloodshed in Bolivia on the previous government and its "tremendous promises made to almost everybody" ("What will the IMF say now?", February 22nd). This is ludicrous. The constitution forbids re-election. The outgoing government of Jorge Quiroga did its best to guarantee transparent and fair elections. The abundant electoral promises were left to candidates.

The Quiroga administration allowed the fiscal deficit to reach 3% of GDP between January and July 2002, well within the 5.7% target negotiated for all of 2002 with the IMF. Under the current administration the deficit reached 5.5% for the rest of the year, driving the annual rate to almost 8.6%. Institutional reforms, a participatory poverty-reduction programme and other policies of the previous administration gained Bolivia broad international support.

Ramiro Cavero
Former minister of planning and sustainable development
La Paz

Stay secular

SIR – You provide a vivid image of Hindu nationalism on a feverish march, one that may not end merely with the construction of the Ram temple ("The new Templars", March 1st). This perhaps is the image the sectarian few in India would want the world to see. For many of us who grew up in the 1950s and 1960s, India was a diverse, secular nation. Our teachers and fellow students were Hindu and Christian, Muslim and Sikh, Buddhist and Jain, and every religion in between. Each brought a unique perspective on

history, philosophy and values. India was a richer country for that deep-rooted secularism.

Today, some of India's best leaders, teachers and scientists are from various religions. India benefits as a result of this immense diversity and talent. Diversity and secularism are India's greatest strengths. For India to be a world leader, this must continue.

Pradeep Ganguly
Glenn Dale, Maryland

Unfounded rumour

SIR – Perhaps short-sellers should use *The Economist* instead of internet chat rooms to pick up the latest rumour ("Don't shoot the messenger", March 1st). It would come as quite a surprise to a number of creditors to learn that Tyco has gone bankrupt.

Michael Horgan
New York

Beating bank charges

SIR – You lament a lack of price competition among investment banks in share offers ("Lucky seven", March 1st). However, the industry is highly competitive. Most banks prefer to compete on the basis of "relationships". This can expose client boards and executives to the burden of sycophantic flattery, lavish hospitality and even priority placements of shares in other hot offers (under-priced, over-hyped or both).

Banks will, if approached properly, compete on price and service quality but this requires detailed, structured and onerous work on the part of clients. It requires managing the work of the banks almost as aggressively as they typically conduct themselves. It requires relationship benefits to be eschewed. Many clients find this too hard—and perhaps too distracting from managing their businesses—merely to protect shareholders' interests. It is a matter of governance again.

Mike Hutchinson
Canberra, Australia

Europe's common tongue

SIR – According to you, a French official in the European Commission says that "the English language is being killed by all these foreigners speaking it so badly" (Charlemagne, March 1st). French has already done its worst to the English language. Two centuries of Norman rule in England after 1066 significantly changed the Germanic grammar and dumped a large amount of French vocabulary into the language. The curious union of French and German that is modern English seems the best reason for making it the *lingua franca* of the EU.

Matt Simon
Boston

SIR – There is an acceptance in the English-speaking world that language is a work in progress, not a static monument. As such, it is subject to continuous influences of culture and new technology. There even seems to be a European-English dialect evolving that is well accepted and understood. This suggests that most Europeans are inclined to learn a language that provides universal communication quickly without being looked down on by native speakers.

Ross Whitehead
Princeton, New Jersey

SIR – You say that Brussels, Luxembourg and Strasbourg are francophone cities. In fact, the key EU institutions are in cities with Germanic cultures that have come under attack from French imperialism. Luxembourg is Luxembourgish-speaking, although French is an official language. Brussels, historically a Dutch-speaking city, is officially bilingual (admittedly with a French-speaking majority now) but is also the capital of Dutch-speaking Flanders in addition to being the Belgian capital. Strasbourg, a German city, was annexed by France.

Geert Van Cleemput
Antwerp

SIR – Are America and France as far apart as they think? Both George Bush and Jacques Chirac believe in cutting taxes irrespective of the effect on the deficit. They both say (one explicitly, the other implicitly) “if you are not for me, you are against me.” And Mr Bush is about to put into action the words of the Marseillaise:

> Tremble, tyrants and perfidious people
> The shame of all good men, Tremble!
> Your parricidal schemes
> Will receive their just reward
> Against you we are all soldiers

Charles Wilson
Eysines, France

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com SPECIAL
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Dealing with Iraq

Very well, alone

Mar 13th 2003
From The Economist print edition

Getty

A failure of the United Nations route may well discourage the United States from such a course in future

Get article background

IT IS the job of diplomats to bridge the unbridgeable and mend the unmendable. Why, then, has the rift that has opened in the United Nations Security Council over the disarming of Iraq proved so hard to heal? And why has the threat of obvious and dangerous damage—to the UN's credibility, to the western alliance, and to relations between America and recently more co-operative Russia and China—not helped to overcome the differences?

Instead, the diplomatic barbs seem to have been deliberately sharpened. America and Britain (along with rotating members Spain and Bulgaria) stand accused of supporting war at any price, while France and Russia (and perhaps China, as well as non-veto-wielding Syria) are suspected of wanting peace at any price, with the rest of the 15-member council ducking for cover between them.

Part of the difficulty is that the council's five permanent members have rehearsed some of their arguments before, and have learned to suspect each others' motives. And the row, though ostensibly about the value of inspections in Iraq, is in truth about much else too.

Iraq was first given an ultimatum to disarm itself of all its weapons of mass destruction in 1991, as part of the ceasefire that ended that Gulf war. It never did so. On the contrary, it developed a whole concealment industry, to try to hide important elements of its nuclear, chemical and biological and missile programmes. This sorry saga was retold in the 173-page report that Hans Blix, the chief inspector, presented to the Security Council on March 7th, along with new worries, including some specially adapted warheads unearthed by the inspectors and an unmanned aerial vehicle, just found, that could potentially be used for biological attack. (Just a research project, says Iraq.)

But if Iraq's history of deception is so clear, why have so many countries, including two of America's western allies, France and Germany, leapt to defend it from attack? The fate of inspections the first time round shows what can go wrong, and why America and Britain have pressed this time for Iraq to suffer the “serious consequences” promised last November in Resolution 1441 if it fails, after 12 years and

many previous resolutions, to take this “final opportunity” to disarm.

Although it was an American-led coalition (including France, among many others, on that occasion) that defeated Iraq in 1991 after its invasion of Kuwait, the Security Council was supposed to do the disarming. Russia and China, two of its permanent members, had opposed military action all along. As soon as Saddam Hussein began digging his heels in firmly against further inspections in 1995 and 1996, the council split. Russia and China, wanting sanctions lifted so they could recover past debts from the Iraqi government and return to oil business as usual, resisted the use of force to back up the inspection teams. France, keen that Russia should not scoop up all the oil contracts, eventually did the same. The inspectors, who were meant to supervise Iraq's voluntary disarmament, not force out its hidden weapons, were increasingly stymied; in 1998, the inspectors withdrew.

Earlier this week, Spain's prime minister, José Maria Aznar, suggested that this time too France, Russia and China were being influenced by their “material interests” in Iraq. France and Russia have repeatedly denied it. And indeed, though economic interests weigh with them, there is more to their opposition this time than that.

On March 10th France's president, Jacques Chirac, struck a very different note. He was concerned, he said, about the harm an American-led attack on Iraq would do to relations with the Arab and the Muslim world, and about the damage being done to the broad coalition that America has pulled together to fight terrorism. George Bush, he implied, needed saving from the folly of his own actions. Both France and Russia this week said they would veto any effort to present Iraq with an ultimatum in a new resolution that could trigger an automatic resort to force. Both suspect (with reason, for he has said as much) that Mr Bush's real aim all along in Iraq has been regime change, rather than disarmament. They argue that inspections are doing the disarmament job, and should be allowed to continue for at least some months more.

Yet even a cursory reading of Mr Blix's 173 pages suggest that Iraq is very far from providing inspectors with what they need. It has destroyed some 50-60 prohibited missiles, and come up with some extra documents and bombs or bomb fragments from the past, but these have not answered the many outstanding disarmament questions, or the suspicions that several governments, including America's and Britain's, have about Iraq's recent activities. At last week's briefing by Mr Blix, Britain's foreign secretary, Jack Straw, charged France with attempting— wrongly—to present the choice before the Security Council as “disarmament by peace, or disarmament by war”. In fact, he said, inspection without a credible threat of force could not work any more this time than it had in the past.

As part of an effort to win a new resolution, and convince the waverers that Iraq has failed to comply, Britain was this week circulating a draft text that set several tests for its disarmament, and a shortish deadline for meeting them. These included a public statement by Mr Hussein, admitting that he has concealed weapons of mass destruction (something he has flatly denied to his own people and to the UN), but announcing he will now give them up; a decision by Iraq to provide 30 scientists for interview outside Iraq, with their families, so as to avoid intimidation; the surrender of all Iraq's suspected anthrax stocks, or credible evidence of their destruction; further destruction of banned missiles; a full accounting of all Iraq's unmanned aerial vehicles, including the testing of spraying devices that can be used for chemical and biological weapons; and the surrender of all mobile chemical and biological production units. These tests aroused little enthusiasm either from the Americans, who saw them as a delaying tactic, or from the French, who saw them as another trigger for war.

The suspicion has grown in recent months that, for Mr Chirac, the issue is not the best means to disarm Iraq (hence his desire to put the onus on the inspectors), but the best way to clip the wings of a powerful America. His foreign minister, Dominique de Villepin, put it more diplomatically when he told the council last week that “We are defining a method to resolve crises. We are choosing...the world we want our children to live in.”

Mr Bush and Britain's Tony Blair would probably not disagree with that. But whereas France, by threatening its veto in the broad way it has, seems to be making the Iraq row a test of wills with America, both America and Britain see it as a test of the Security Council's resolve to enforce its own repeated resolutions against a serial offender who has shown every determination to resist. What is the lesson for the next country that has weapons of mass destruction, asked the White House spokesman this week, if the Security Council backs down this time?

The answer in future may be even less to Mr Chirac's liking, worry other European officials, including some in France and Germany. If France and Russia block UN approval of military action against Iraq this

time, and America does the job largely by itself, as it has the powers and, it claims, all necessary legal authority to do, it may be dissuaded from working through the UN in future.

What is more, although France and Germany have sought to rally other European governments to take a stand against America on this issue, they have largely failed, and instead produced a damaging split in both NATO and the European Union too. Trust between allies, once breached, may prove no easier for the diplomats to mend.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com SPECIAL
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

The coming war

Into the breach

Mar 13th 2003
From The Economist print edition

How will America—and Saddam Hussein—fight the second Gulf war?

Get article background

EXPERTS in conflict, says “The Art of War”, an ancient Chinese strategy manual, “release the attack like a lightning bolt from above the nine-layered heavens”. For all its technological wizardry and Iraq's relative weakness, America can't afford entirely to neglect the classical principles of warfare, including the ancient Chinese recommendation of surprise. Many current rumours about strategy may, therefore, be unreliable. Still, some outlines of the impending campaign are fairly clear.

AP

His resistance may not last long

A war will begin with an intense bombardment, probably of unprecedented accuracy. Iraqi air defences, clustered around Baghdad, will be among the first targets. Those in the southern no-fly zones have already been extensively bombed; in a recent overture to war, so too has surface-to-surface weaponry. American aircraft, taking off from carriers, various countries in the region and bases farther afield, will also strike command centres, presidential palaces and other props of Saddam Hussein's regime.

Ground operations will begin much more swiftly than they did in the Gulf war of 1991, perhaps even simultaneously. Special forces have probably been in Iraq for some time, scouting out targets, landing strips, bridges and suchlike. The main American invasion force will thrust north from Kuwait, with British commandos and some American marines perhaps detailed to seize the southern city of Basra. American top brass have also insisted that there will be a northern front, whether or not the Turkish parliament reverses its decision not to allow American troops to enter northern Iraq from Turkey.

If there were heavy forces, such as the 4th Infantry Division, on the ground in the north and advancing south towards Tikrit and Baghdad, Iraqi resistance would be divided, enabling allied units moving up from the south to do so more quickly. If Turkey doesn't budge, American armour could be flown in to airfields in northern Iraq. More likely, though, than such a laborious airlift would be the insertion of lighter troops, such as the 101st Airborne (the “Screaming Eagles”), with their Apache helicopters. Supported by air power, they should at least be able to protect Iraq's northern oilfields and prevent strife between the Iraqi Kurds and Turkey.

If discerning American plans is tricky in the fog of disinformation, divining Mr Hussein's intentions is impossible. Until recently, he seemed confident that he could stave off an invasion. Trenches have

reportedly been dug around Iraqi cities and filled with oil, which, when set ablaze, could confuse laser-guided munitions. But there is little sign of a concerted attempt to defend Iraq's borders; instead, Mr Hussein will harry the invaders as they close in on his capital.

Past form suggests some likely tactics. Mr Hussein may destroy dams on the Euphrates and Tigris rivers. Despite statements to the contrary, he may set fire to Iraq's oilfields (see article). American and British forces will have to provide aid to many Iraqis even as they kill others, a humanitarian burden which Mr Hussein could augment by generating mass refugee flows. Taking larger numbers of prisoners will also be burdensome, which is why America has indicated it may leave surrendering conscripts to their own devices.

History also suggests that Mr Hussein may well use chemical weapons. America will attempt to seize facilities thought to contain weapons of mass destruction, or disable them by cutting power supplies or bombing. Iraqi officers may choose to ignore orders to deploy sarin or VX. Still, the chances of American troops encountering such weapons remain high.

Mr Hussein will be worrying as much about keeping his own people in check as about holding up the invading juggernaut. America will try to induce a coup, by shattering Iraqi morale early and enticing Iraqi commanders to switch sides. Mr Hussein will endeavour to prevent one. So the Republican Guard and Special Republican Guard divisions concentrated in and around the capital will have one eye on, among others, the potentially seditious Shias of Baghdad.

If it comes to a battle for the city, allied forces would try to seize key sites and arteries and so emasculate Mr Hussein's regime relatively bloodlessly. He may try to procure a bloody stalemate. Unfortunately, there are few previous examples of clinical urban warfare, and plenty of gory ones. The longer urban battles go on, the less restrained they tend to become. In any case, political concerns would make an extended siege hard for Messrs Bush and Blair to countenance.

How Baghdad falls will partly determine how many people the war kills, on both sides. The Pentagon has advertised the leniency with which it intends to treat regular Iraqi troops, and the care with which the targets of its precision munitions will be selected (though up to 10% of “smart” bombs generally turn out not to be so smart after all). On the other hand, an example may be made of any Iraqi unit offering stiff resistance; and, as American officials have also been keen to point out, Mr Hussein may use Iraqi civilians as human shields, as he did in 1991. The Pentagon says that fake American uniforms have been acquired for Iraqi militia, implying that they may commit atrocities and blame them on America. Among the most calamitous of possibilities is an Iraqi strike on Israel—either by missile or by orchestrated terrorism, which could provoke a ghastly escalation.

In the end, victory may prove difficult to define. As General Tommy Franks, the American commander who will direct the invasion, recently observed, the term “regime” can be defined in different ways. Mr Hussein or (more likely) a cadre of his henchmen may survive to pursue a Taliban-style campaign of harassment. Much depends on whether Iraq's despot values his own survival above his legacy, and what sort of legacy he wants to leave.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com SPECIAL
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Iraq's oilfields

Call the hellfighters

Mar 13th 2003 | NEW YORK
From The Economist print edition

Will Saddam Hussein sabotage his own oil wells?

AP

Blazing for nine months

Get article background

THE inferno was unforgettable even on a television screen. In the last Gulf war, Saddam Hussein's retreating troops blew up some 700 Kuwaiti oil wells. They did so partly out of spite, partly to slow down the allied advance. The flames raged for up to nine months before men like Paul “Red” Adair, a professional fighter of oil-well fires, managed to put them out. The Kuwaitis later claimed that the damage done cost them more than $20 billion.

American military planners now worry that, after an invasion, Mr Hussein may use the same desperate tactic on Iraqi fields and refineries. Intelligence agencies are suggesting that he has been shifting explosives around the country for such a purpose, and that troops have been moving through the southern oilfields. On March 6th the Pentagon, breaking its previous silence on the matter, announced that a division of Halliburton, the oil-services firm previously headed by Vice-President Dick Cheney, will co-ordinate the oil-fire fighting efforts if they are needed.

Easy money for cronies? Not necessarily. Putting out oil fires is not just a matter of a lot of water and some powerful propulsion machines; each well is different, and the task in Iraq, if the worst happens, will be far trickier than it was in Kuwait. Iraq's wells, unlike many Kuwaiti ones, are often associated with natural gas, which complicates matters. Kuwait's fields were small, whereas Iraq has several gigantic spreads—such as the northern Kirkuk field, now being eyed by both the Kurds and the Turks, and perhaps already sown with explosives—which would be a nightmare to deal with if set ablaze. A decade ago, the fires were concentrated in a small desert area to which water could be brought fairly easily. Iraq's terrain, by contrast, ranges from mountains to swamps, and many fields have no water nearby.

Roger Anderson of Columbia University, who observes that the Kuwaiti fires did surprisingly little damage to the underlying reservoirs of oil, also worries about the age of Iraq's fields. The older the field, the lower the pressure, and the more likely that fires will reduce that pressure beyond the point of no return.

In the end, Mr Hussein may not attack his country's oil—its “lifeblood”, as he put it recently—at all. His soldiers, too, may refuse to follow orders to sabotage the wells. Even so, the first oil men who venture into Iraq must be prepared for the possibility of booby-traps, in the form of either explosives or, remotely, something nastier.

This explains why even Mr Adair recently declared that “Kuwait was easy compared to what would happen over in Iraq.” Other oil-fire fighters agree. Coming from men who, in Kuwait, took showers in diesel fuel to get clean, these are sobering words indeed.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com SPECIAL
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Asylum

A strange sort of sanctuary

Mar 13th 2003
From The Economist print edition

Murdo MacLeod

As the West contemplates another war and more refugees, are current policies on asylum the best way to help them?

THE prize is tremendous. A passport that will take you across most of the world's borders, without the need for a visa or a humiliating wrangle at a foreign embassy. A new life in a society offering jobs, opportunities and safety from crime and civil unrest. A permanent home for your family. Free education, and probably welfare benefits if you lose your job or can't cope. All these are yours if you successfully claim asylum in one of the world's wealthy countries. No wonder a system once intended to protect the vulnerable has become a beacon to the frustrated in the 120 or so countries around the world where governance is a mess and opportunity scarce.

Now the rich world's governments are alarmed by this back door for immigration. Already, Iraqis are the largest single category of refugees, accounting for 11.2% of all European asylum-seekers in the first nine months of 2002, and a war would swell the flow. At the same time, asylum-seekers have been picked up as security threats in several countries. Nothing makes governments twitchier than the confusion of asylum and terrorism. America drastically tightened its asylum laws after an asylum-seeker tried to blow up the World Trade Centre in 1993.

Europe is in any case more nervous about immigration than the countries whose populations have been built by immigrants. The annual number of asylum-seekers, which rose sharply in the early 1990s, has been fairly stable for some years, although the flow has switched among countries as one door after another has closed a bit more. Currently the fuss is greatest in Britain, for the simple reason that it is now the leading destination—receiving a quarter of all applications, according to John Salt of University College London. But asylum-seekers are unpopular elsewhere, too. In Switzerland last November, voters rejected by a mere 3,000 votes a referendum asking whether more asylum-seekers should be kept out. A year earlier, the Danes voted for a politician who promised (and has delivered) drastic cuts in asylum-seekers.

As asylum-seekers come back into the spotlight, governments are more conscious of the cost of handling them. Fifteen countries make up the Inter-Governmental Consultations on Asylum, Refugee and Migration Policies in Europe, North America and Australia (IGC). The IGC'S published estimate of the cost to taxpayers of the 450,000-500,000 people who apply for asylum each year in the 15countries is $10 billion a year. The true figure may now be at least a couple of billion dollars more; all countries downplay

the numbers.

Much of this money goes not directly to asylum-seekers themselves, but to the bureaucrats who process them, the lawyers who represent them and the people who support them. Moreover, even the lowest estimate dwarfs the annual budget of the United Nations High Commission for Refugees, which looks after some 20m people, many in refugee camps. Last year UNHCR did not meet its planned budget, which had to be cut to $710m. That is less than a quarter of the annual sum that Britain alone spends on processing and supporting asylum-seekers. No wonder Ruud Lubbers, the former Dutch prime minister who now heads UNHCR, complains that the West has largely forgotten the plight of the people in the world's refugee camps.

What has gone wrong? In the wake of the second world war, countries adopted the 1951 Refugee Convention, covering those in Europe who had already fled persecution. This was extended in a 1967 protocol to cover all refugees, giving everyone the right to seek asylum and refugees the right not to be sent to a place where they would be persecuted or tortured.

The convention and the subsequent protocol were adopted when there were few refugees, mostly from communist regimes. However, these well-meaning pieces of international law have become almost the only channel through which most immigrants can hope to enter most rich countries. Few European governments allow any immigration of people who merely want to work, unless they have specific skills; even more permissive countries, such as America, Australia and Canada, rarely allow in unskilled workers.

An elaborate legal process has evolved to determine whether an immigrant who claims the right to asylum really merits it under the terms of the convention. In recent years, the answer has usually been no. Only 12% of applicants in IGC countries in 1992-2000 won asylum status (plus a few more on subsequent appeal), and a further 6% were granted some other humanitarian ranking. In other words, 80% of those who pass through the elaborate and expensive screening process of the rich world are not considered genuine.

Does that mean countries are being too harsh? Undoubtedly, some deserving cases are turned down. But alternative routes are so few and the prize for success so great that there is an immense incentive to break the rules.

For example, a war encourages the rich countries to be generous. There is, after all, no likelihood that a refugee will be returned to a country at war. So in any bout of civil unrest, some of those who claim to come from the war-torn land may actually hail from somewhere else. During the war in Kosovo, generous countries freely admitted refugees, some of whom undoubtedly came from neighbouring (peaceful but poor) Albania. No doubt some of today's “Iraqi” refugees really come from other unpleasant places.

How hard to be fair

Most countries' asylum policies struggle to disentangle humanitarian concern from immigration control. Two particular problems arise. One is how to process people fairly but quickly; the other, what to do with those who are rejected.

Both tasks are made harder by the difficulty of knowing with any certainty where a refugee comes from. Only 20% of those who claim asylum arrive with identity papers. Some destroy their passports en route; others hand them to the smugglers who have brought them. Several countries have special language-analysis units to help with the job. Of asylum-seekers interviewed by Switzerland's language-analysis unit, 70% promptly go into hiding. Of those whose application is rejected and who then go home, 80% return to the country that the unit has judged they come from.

In designing an effective way to process applicants, some countries take the view that it is pointless to subject to an expensive legal process those who are likely to remain in the country anyway. Most of the countries of southern Europe have relatively few asylum-seekers because they are more willing to turn a blind eye to illegal or semi-legal migration.

Canada, by contrast, has an unusually high level of acceptances of asylum claims partly because it has a more generous definition of eligibility than most other countries. However, says David Matas, a senior migration lawyer, Canada also does not waste time putting through an elaborate legal rigmarole people who are unlikely to be returned to their country. Elspeth Guild, a British immigration lawyer, believes this

principle should be extended. “What is the point of putting Iraqi Kurds through the asylum system?” she demands. “You aren't going to send them back.”

Ten degrees of toleration

Asylum procedures, selected countries

	Asylum claims, '000		Average processing time*	Accommodation	Possibility of detention	Permission to work	Access to welfare benefits
	2001	2002					
Australia	12.4	6.0	88 days	Private if not detained	All unauthorised arrivals	If not in detention after 6 months	If not in detention
Britain	90.2	109.5	13 months	Private	May be detained	After 6 months	Withdrawn on rejection of appeal
Canada	44.1	30.4	11 months	Private	May be detained	Yes	Yes
Denmark	12.4	5.9	180-258 days	Reception centre	Undocumented	No	In reception centre
France	47.3	46.3	na	Reception centre	na	No, unless stringent criteria are fulfilled	Yes, withdrawn on completion of procedure
Germany	88.3	71.1	2 weeks-6 months	Reception centre	Undocumented	After 12 months	Only in kind
Italy	14.8	na	180-240 days	Private	Free to move	No	Limited to 45 days
Netherlands	32.6	18.7	31 weeks	Reception centre	May be detained	After 6 months and limited to 12 weeks a year	Not if undocumented and stopped after negative decision
Switzerland	20.6	26.1	90 days	Reception centre	Undocumented at airports	After 3 months	In reception centre
United States	67.1	63.0	60 days	na	Undocumented at border	After 6 months	No

Source: Inter-Governmental Consultations on Asylum, Refugee and Migration Policies

*Normal procedure without appeal

In other countries, the legal process can be interminable (see table, which inevitably oversimplifies complex national approaches). The longer it lasts, the harder it is to keep asylum-seekers in some sort of detention and the greater the likelihood that they will find work, legal or not, and otherwise become integrated into their new country. In 1994-95 the United States reformed its process, depriving applicants of permission to work while waiting for their cases to be settled, as long as that took no more than six months. Applicants also received no welfare benefits. When the reform was under discussion, immigrant-support groups did a survey and found that most asylum-claimants were helped by their family or community. The removal of work permits dramatically reduced asylum claims but, says Susan Martin of Georgetown University, approval rates also rose sharply.

While they wait for their cases to be determined, asylum-seekers in most European countries can get welfare benefits more easily than they can get permission to work. Not only does that send out unfortunate signals to immigrants, who may not have come across welfare before and are disproportionately likely to be dependent on it in the more generous parts of Europe; it also makes taxpayers cross.

Australia has tackled the processing of refugees in a quite different way. Its policy of managed migration includes accepting a generous share of refugees from UNHCR camps each year, as well as a number of other asylum-seekers who apply in third countries outside Australia. But those who arrive without visas and lodge a claim are detained, together with others who do not have visas, while their claim is heard. The policy is expensive and makes liberal Australians uneasy. But, together with the country's geography, it seems to have been remarkably successful in keeping away boatloads of would-be refugees.

However fast and fair a country's processing system, it will be pointless if those who are rejected do not go home. However, once people are in a country, it is hard to make them budge. Governments everywhere hate bundling handcuffed immigrants on to aircraft; and, alarmingly often, deportees get killed. In January three French police officers were suspended after a Somali immigrant died while being deported; in December four French officers manhandled a Malian television crew who filmed them restraining a Malian illegal immigrant on a flight from Paris.

Even if an immigrant agrees to go, the country he says he comes from may refuse to accept him. Tony Blair, the British prime minister, caused ructions when he suggested that foreign-aid policy might be tied to a country's willingness to take back its wandering citizens. A European Union delegation has begun talks with China, which is particularly stubborn about accepting returned migrants. Switzerland has recently opened an office in West Africa to try to determine where its rejected African asylum-seekers come from.

Because of such difficulties, countries try harder and harder to stop asylum-seekers ever reaching their shores. America intercepts fleeing Haitians and Cubans at sea and returns them (although Cubans who make it to Florida generally get permission to stay, as political refugees). Ms Martin worries that the Coast Guard rarely bothers to ask those on Haitian boats whether they are seeking asylum before dumping them back. In January, seven vessels from Spain, Britain, France, Portugal and Italy set sail from Gibraltar to patrol the southern Mediterranean, in a first step towards a common European border guard.

Countries often hope that a reputation for a tough approach will keep the hopefuls away. In fact, surveys of asylum-seekers tend to find that they know little, when they set out, about immigration policy in the countries they end up in. But some learn on the way, and those who smuggle them are extremely well informed. Khalid Koser of University College London, who has studied smugglers and their passengers, reports that the payment system has altered: smugglers now receive part of their pay after the immigrant has arrived. That gives them a strong incentive to take people to countries where they are likely to arrive safely, be allowed to stay and be able to get a job to pay their debts.

Get out and stay out

Policy on asylum-seekers in recent years has emphasised two issues. One is simply keeping people at bay; the other is to collaborate more. When one country puts up barriers, the one next door comes under more pressure. At present, few can agree even on who is a refugee. Some countries, such as Canada, accept women fleeing abusive husbands or the threat of genital mutilation; many do not accept as refugees those who claim to be escaping civil unrest rather than persecution at the hands of government, to the dismay of fleeing Sri Lankans and Algerians.

However, in Europe, says Kay Hailbronner of Konstanz University in Germany, a common regime has begun to emerge. In January, the members of the European Union, with Norway and Iceland, launched Eurodac, a system to fingerprint all asylum-claimants and share the information throughout the region. The EU is also trying to hammer out a common definition of asylum-seekers and common standards for dealing with them. That could discourage asylum-shopping, but would also frustrate the desire of individual countries to control this politically delicate issue directly.

Reuters

Coming to a street near you

Everywhere, too, countries hope to send back asylum-seekers who have passed through a safe third country on their way to refuge. Canada has recently negotiated such an agreement with the United States (through which any asylum-seeker travelling by land must obviously pass). The countries of the EU are taking advantage of the desire of their eastern neighbours for closer economic ties to negotiate such agreements with them. Refugees who would once have ended up in Germany now get stuck in Poland, Hungary or the Czech Republic.

But such buck-passing raises a bigger issue. Does asylum policy protect the people who are most in need? Nicholas Van Hear of the Centre for Development Research in Copenhagen has looked at Somali refugees and at Tamil refugees from Sri Lanka. In an unpublished paper, he argues that asylum migration is mainly the preserve of the well-to-do: at a cost of more than $10,000 for a passage from Sri Lanka to the West, and about $5,000 for one from Somalia, it is beyond the financial reach of everyone else. The middling well-off migrate to more prosperous and stable nearby countries (the Gulf in the case of Sri Lanka); the poor stay put.

In addition to being disproportionately well-off, asylum-seekers tend to be mainly male: more mobile, more willing to take risks. Refugee camps, by contrast, typically house large numbers of women and children. So the vast sums of money spent on asylum-seekers in the West go to those who least need help.

A better way

This suggests an alternative strategy. Should governments separate the concept of protecting asylum-seekers, to which the refugee convention binds them, from that of admitting them to the country they

want to go to? As the International Organisation for Migration points out in its annual report, published last month, it would be consistent with a state's obligations under international law to send a refugee to a third country, provided there are safeguards in place to ensure that he would not be sent on to a country where he might be persecuted or tortured.

This possibility is now widely discussed. Mr Lubbers, UNHCR's astute head, sees the danger that perversion of the asylum route might one day lead infuriated recipient countries to back out of the refugee convention entirely. He also has far too little money and far too many refugees to care for. So he proposes what he calls “Convention Plus”. Do not dismantle the refugee convention, but redirect it. Why not, he asks, shift the emphasis from protecting a few in rich countries to protecting many nearer to their homes? People who flee to developing countries (as many Afghanis fled to Pakistan, for instance) are far more likely to return than those who reach the fleshpots of Hamburg or London.

Meanwhile the British government is exploring the possibility of copying the Australians (see article). It could remove those who turn up and request asylum, either to established refugee camps where their claims would be processed along with those of other refugees, or to special processing centres on the perimeter of the European Union. At a UNHCR meeting on March 7th, Mr Lubbers appeared to favour the British proposals. His ideas for Convention Plus will now be refined by a forum of interested parties, starting in June.

There are plenty of possible problems. Judges might not allow the removal of asylum-seekers to be processed elsewhere; countries might refuse to accept would-be asylum-seekers into their camps; locals might grumble that refugees were being pampered.

Even if a plan of this sort succeeds, and flows of asylum-seekers dry up, no rich country should imagine that illegal immigration will stop. The tax burden of paying for the asylum process will go. But the pressure will remain for migrants to leave the world's ill-governed countries and head for the ones where demand for cheap labour flourishes. If the rich world does not allow immigrants in legally, they will continue to come through the back door.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

The national mood

We shall overcome

Mar 13th 2003 | WASHINGTON, DC
From The Economist print edition

Americans' support for war in Iraq has survived a sharp decline in George Bush's personal standing. How strong is it really?

Get article background

IT HAS been a week of delay. A quarter of a million soldiers are kicking their heels on Iraq's borders, checking their guns and, it appears, occasionally getting baptised before battle. Tommy Franks, the head of Central Command, told George Bush last week that his troops are ready to fight the moment the president gives the order. Mr Bush himself said on March 6th that he was prepared to go to war even if the United Nations Security Council does not sanction it. Yet word has not come.

For America's diplomacy, the past week has been frustrating; for Britain's Tony Blair, it has been worse than that (see article). But the chancelleries are not the only places where delay is having an impact. It is affecting American public opinion, too. This, in turn, will influence America's willingness to sustain war in Iraq in the face of losses, as well as its long-term commitment to rebuilding the country.

On March 8th, a crowd gathered in freezing Omaha, Nebraska, to wave banners saying “Saddam is a murderer. Shame on Europe”, and to cheer Bob Kerrey, a former Democratic presidential candidate, for his resolute support for war. (“This war is not for oil. It's not for glory. It's for the freedom of others who have suffered mightily.”) A week before, a bigger crowd gathered in Houston to laud local politicians who vetoed a city council resolution condemning war. In Nashville, people queued up to sledgehammer a Peugeot.

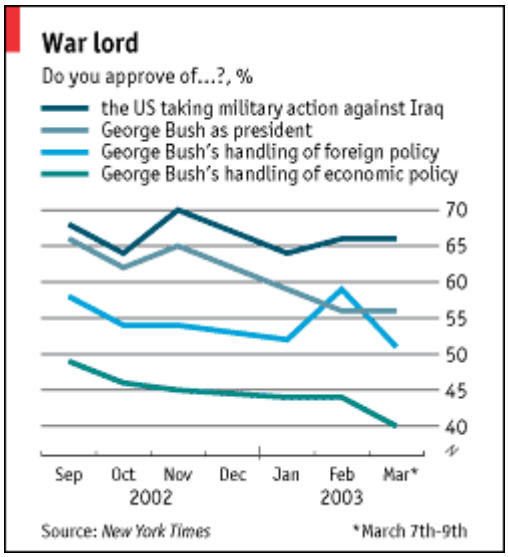
These “Rally for America” demonstrations were smaller than the anti-war demonstrations that swamped New York and San Francisco last month. The organisers claimed 10,000 people in Houston, 5,000 in Omaha. But this was hardly trivial, considering the rallies were improvised at the last minute by local radio stations. Over the same weekend there were pro-war rallies as big in Cleveland, Oklahoma City, Tulsa and San Antonio—“flyover” cities in the vast heartland.

Most important, the sentiment of the demonstrators seems in tune with Americans as a whole. This week, two polls—for the *New York Times* and ABC News—found evidence that support for war is rising on the eve of conflict, and that more people are prepared to back military action regardless of what the

United Nations does. In both surveys, two-thirds of people approved of war in general. Support has remained at roughly this level for months.

Strikingly, there are now signs that Americans' patience with diplomacy is wearing thin. A small majority still says UN weapons inspectors should be given more time. But that number is falling. So is the number of those who believe Iraq can be contained by inspections. And there has been a big rise in those who say America should take military action soon, regardless of the UN. In the *New York Times* survey, half the respondents said the threat of Iraq's weapons programme had to be dealt with now, while 55% said they would approve of military action even without the Security Council's approval. That contrasts with European countries, where backing for war, where it exists, depends on the UN's endorsement.

But perhaps the most remarkable feature of Americans' continued support for military action is that it comes against a background of declining fortunes for Mr Bush on virtually every other front. An analysis of combined polls showed that in the last quarter of 2002 almost two-thirds of Americans approved of his performance as president, compared with one-third against. The score is now 51-42%. For the first time, war with Iraq is more popular than Mr Bush himself.



His "re-election numbers", admittedly an academic exercise at this stage, have declined alarmingly. Asked "Would you vote to re-elect Mr Bush if the election were held today, or for someone else?", Mr Bush would win by just one point (38-37%). At the start of the year he had a ten-point advantage. His popularity is back to what it was on September 10th, 2001.

Thom Riehle, the head of Ipsos-Reid, the polling firm that provides the latest snapshot, argues that Iraq is partly to blame because the debate on whether to invade shifts public attention away from fighting terrorism, where Mr Bush is deemed stronger. Against this, as Charlie Cook, a political analyst, points out, the broader public mood of increasing pessimism tends to colour everything else. Only one in three Americans thinks the country is heading in the right direction, the lowest level for seven years.

Much of that decline is attributable to the economy, not the war: the Dow is down, joblessness is up and national income is flat. Of course, war uncertainties have something to do with that. But no one thinks a swift victory will turn the economy around: indeed, the net effect of war could be a further economic drain. Mr Bush's troubles come primarily from domestic concerns. Backing for war in Iraq is keeping his public support higher than it would otherwise be.

That is the main domestic reason why the stakes in Iraq are so high for the president: if things go wrong there, he is vulnerable elsewhere. Moreover, there are two reasons for thinking he may be vulnerable on Iraq itself, if the war is anything short of a triumph.

First, evidence is mounting that support for war is becoming more partisan. All the Rally for America demonstrations have taken place in Republican states. The big anti-war ones have been in Democratic states. In a bold move, Republicans have insisted that congressional cafeterias start serving "freedom fries" (and "freedom toast" for breakfast). More than 100 Democratic-controlled city councils, including this week the one in New York, have passed anti-war resolutions. More seriously, 73% of Republicans told the *New York Times* poll that they would approve of military action without UN backing, compared with only 42% of Democrats. In 1999, Tom DeLay, now the majority leader in the House of Representatives, called Kosovo "Clinton's war". Iraq is starting to look to Americans a bit like "Bush's war".

So far, that has been a bigger problem for the Democrats. Their presidential hopefuls cannot afford to stray too far from the anti-war base of activists who will choose the party's nominee next year and who have been urging them at campaign stops to speak out more forcibly. But most of them cannot do this because they voted in favour of last year's congressional resolution authorising force in Iraq.

Until recently, that dilemma had bedevilled their campaigns and allowed Howard Dean, the former governor of Vermont, to become a more serious challenger because of his forthright condemnation of Mr Bush. But weeks of diplomatic embarrassment—not only in the UN, but with NATO, Turkey, the European Union and North Korea—have changed the Democrats' position.

Their candidates are now able to assail Mr Bush for damaging American diplomacy, and its store of global goodwill, without seeming weak on Saddam Hussein, and without undermining the support they will give to American soldiers if and when fighting starts. As Norm Ornstein of the American Enterprise Institute points out, this line of argument may also prove effective after the war, if the diplomatic wounds do not rapidly heal.

Second, there is evidence that support for war may be shallow, raising doubts about how long it will be sustained if things go awry. UN backing makes less of a difference to Americans than to people in other countries, though it bolsters support for military action. Yet polls also show a big rise in distrust of the Security Council. The most plausible explanation for this paradox, argues Tom Mann of the Brookings Institution, is that Americans are looking not only for diplomatic support, but also for broader reassurance that they are doing the right thing. They are not getting it. Even now, only half of Americans think Mr Bush has made a compelling case for war. Explanations of his rationale are all over the place. And half of those who support war say they would not be bothered if Mr Bush did not pursue it.

That finding suggests Americans may be supporting military action not because they have accepted a compelling national-security argument. Rather, they trust Mr Bush's judgment. His judgment may well be vindicated by a swift, comparatively merciful victory. But if not, doubts will grow quickly—and it remains to be seen whether public support is deep enough to sustain a long military campaign in Iraq, or a possibly chaotic period of reconstruction afterwards.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Conspiracy theories

Lindbergh lives

Mar 13th 2003 | RICHMOND, VIRGINIA AND WASHINGTON, DC
From The Economist print edition

Whispers blaming the war on a Jewish cabal have got a little louder

JIM MORAN, a Democratic congressman from Virginia, has a reputation for leading with his mouth. His latest *bon mot*, however, could cost him his seat. On March 3rd, the pugilistic Irish Catholic suggested that the looming war with Iraq was the handiwork of the American Jews. “If it were not for the strong support of the Jewish community for this war with Iraq,” he argued, “we would not be doing this.”

It has taken time for Mr Moran's comments to work their way into mainstream Washington politics, and he has already issued several apologies. But he is now drawing fierce criticism from both Republicans and Democrats of all religions. The reaction, which already includes calls by local rabbis for his resignation, rebukes by the White House and lectures from the congressional leadership, recalls the Trent Lott affair three months ago, when the Mississippi senator was forced to quit as Republican majority leader after indirectly praising segregation.

Mr Moran says that he has no intention of resigning. But his position is weakened by his somewhat spotty record. In 2001 he was rude about Ariel Sharon to the American Muslim Council. Mr Moran has also been criticised for taking political contributions—later returned—from Muslim organisations that federal authorities at one time suspected of having ties to terrorist groups.

Whatever his faults, Mr Moran is not alone in raising suspicions about the fact that so many hawks in the Bush administration, including the deputy defence secretary, Paul Wolfowitz and the head of the Pentagon's defence-policy board, Richard Perle, happen to be Jewish. Gradually people from the left and right are beginning to allege in public what some moderates whisper privately: that war against Iraq has been promoted by a cabal of Jewish hardliners who are more concerned with protecting Israel than they are with advancing America's national interest.

Shirley Williams, a left-of-centre British politician who is married to one of America's most prominent intellectuals, Richard Neustadt, and is currently a visiting professor at Harvard's Kennedy School of Government, told the House of Lords that the Bush administration's policy is “propelled to some extent by what I can only describe as a fundamentalist Christian and fundamentalist Jewish drive that is almost as powerful as fundamentalist Islam itself”. Michael Lerner, a rabbi and editor of the leftist Jewish magazine *Tikkun*, was blackballed from speaking at an anti-war rally in San Francisco because some of the sponsors apparently refused to have a “pro-Israel” speaker.

On the left, no discussion of the war is complete without somebody claiming that a group of neo-conservatives with close ties to Israel has been planning the whole thing for years. Back in 1996, they point out, several prominent American Jews who now occupy influential positions in the Bush administration, including Mr Perle, Douglas Feith and David Wurmser, helped to write a report for a hardline Israeli think-tank with close ties to Binyamin Netanyahu. It called for Saddam Hussein's removal from power. Prominent Jewish hawks also banged the anti-Saddam drum in the pages of the *Weekly Standard* and in reports for another think-tank, Project for the New American Century.

On the right, one of the most prominent critics of the war, Pat Buchanan, is also an outspoken critic of the role of the Jewish lobby in American politics. Back in 1990 Mr Buchanan argued that the first Gulf war was being touted by “the Israeli Defence Ministry and its amen corner in the United States”. Last year, Mr Buchanan founded a magazine, *American Conservative*, with the express aim of recapturing the conservative movement from the (largely Jewish) neo-conservatives who, he thinks, have hijacked it.

In the 1930s, when anti-Semitism was both pervasive and respectable in America, Charles Lindbergh and his America-Firsters blamed Jewish interests for trying to drag America into a pointless war with

Germany. Today, country clubs and universities in America have abandoned their restrictions and quotas. Yet some people continue to see sinister Jewish forces trying to drag America into unnecessary foreign entanglements. Mr Moran, rather like Mr Lott, is an unsettling reminder of a dark part of America's past.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

A labour dispute on Broadway

Life's the pits

Mar 13th 2003 | NEW YORK
From The Economist print edition

From chorus lines to picket lines—and back again

Get article background

“THE turmoil is over and there is love in the air.” A rather flowery reaction to the end of an expensive strike; but then this was a luvvie talking, the producer of the musical “Chicago”, celebrating curtain-up after a weekend when many of Broadway's theatres had been dark.

The musicians walked out on March 7th, after failing to reach an agreement with producers on the minimum size of theatre orchestras, and actors and stage-hands refused to cross their picket lines. Eighteen musicals, an unseemly number of them revivals, were cancelled for four days, costing the theatres $1.2m for each performance, depriving New York City of an estimated $10m and forcing elderly tourists to watch something else.

Orchestra minimums have been in place since the 1930s, but over the years they have crept lower. Under the old contract, agreed in 1993 when “Les Misérables” was only six years old, musical productions in Broadway's 13 largest theatres had to employ at least 26 musicians, a number the producers wanted first to eliminate and later reduce to 14. The musicians' union meanwhile feared their jobs would be phased out completely in favour of computer-generated or recorded music.

Despite their often woeful predictability, musicals made up 80% of Broadway's revenues of $643m in the 2001-02 season, allegedly entertaining 8.5m people. Although the district's theatres employ only about 6,000 people directly—from ushers to saxophonists—they support more than 40,000 ancillary jobs. Business in local restaurants, bars and, one presumes, cardiac units was down by as much as 90% because of the strike. Hotels and taxis also felt the pinch. Nearby streets were bizarrely empty of tourists, though the few wanderers enjoyed impromptu concerts by striking musicians and singers.

Many of the shows were doing badly anyway. Attendance for some had been falling for a year and a half. A lengthy strike could have ended some runs and prevented other shows from opening. The last time Broadway had a strike, in 1975 for 25 days, audiences were slow to return. Tourism officials forecast that the strike could have cost the city $50m a week: not something New York's mayor, Michael Bloomberg, wanted, when it already has a budget deficit of $4 billion.

Luckily, Mr Bloomberg—whose latest union production, “City Labour Contracts”, was such a hit last year—invited the warring thespians to Gracie Mansion and forced them to be nice. The settlement includes a ten-year commitment to live music on Broadway. Producers have promised to hire at least 18 or 19 musicians at the largest theatres, with some room for flexibility. Smaller orchestras will save producers more than $600,000 a year.

Not everyone suffered because of the strike. Plays, some of them new ones, and Off-Broadway shows sold out. “Cabaret”, which has a separate contract with the union, was the one musical unaffected. Its standby tickets were gold-dust for scalpers and tourists alike.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Shamateurism in sport

Georgia in my wallet

Mar 13th 2003 | ATLANTA
From The Economist print edition

College basketball shows its seamy side—yet again

“AND if I had a son, sir, I'd tell you what he'd do/He would say ‘To hell with Georgia', like his daddy used to do.” So goes a verse in a whisky-soaked dirge of Georgia Institute of Technology. It is directed against Tech's main rival, the University of Georgia—which is bigger, better-known, nicer-looking, and generally better at sport.

This year's basketball season seemed to be following a predictable pattern. Georgia Tech stumbled along with a mediocre record, while the Georgia Bulldogs looked poised to reach the annual championship tournament of the governing National Collegiate Athletic Association (NCAA). Yet on March 11th the Bulldogs' season ended prematurely, when the University of Georgia withdrew the team because it had broken NCAA rules.

Those rules, much ridiculed and abused, try to give a veneer of amateurism to a sport that is as much a business as a game. Thus players cannot be paid beyond a scholarship and a small stipend, and they must be decent students (despite playing nearly 40 games a year in a schedule that disdains classes). Penalties for breaking the rules include the loss of scholarships or television revenues. In 1989, the NCAA stopped one football programme altogether. More recently, it has banned the universities of Nevada-Las Vegas and Minnesota from tournaments.

The University of Georgia's problems began when a player confessed in February that he had received an A grade for a class he'd never attended, and some gifts from his coach. To make matters worse, the class, “Coaching Principles and Basketball Strategies”, was taught by the son (and assistant) of the university's basketball coach, Jim Harrick. In two merry decades in the game, Mr Harrick has amassed one national championship, one firing for falsifying an expense report and one sexual-harassment lawsuit (later settled).

After a hasty internal investigation, the university fired Mr Harrick junior on March 4th. Since then it has declared two of its players academically ineligible, suspended Mr Harrick senior and pulled out of two tournaments, the Southeastern Conference and the NCAA's shindig.

This will hurt. The university, already suffering from state budget cuts, will lose money on ticket sales and also its share of the tournament's revenue. After last year's Southeastern Conference tournament, the organisation split $3.5m in net profit with its 12 member schools. The NCAA tournament, which sold its TV rights for $6 billion back in 1999, will share out $97.5m to participating schools.

The university pulled the team because it wants to save its basketball programme in the long run. On March 9th, the president of St Bonaventure University in upstate New York resigned because a basketball player had been admitted with inadequate qualifications (a certificate in welding). Villanova University in Pennsylvania has suspended 12 players for getting free phone calls. And two other big basketball colleges have decided to ban themselves from major tournaments: California State University at Fresno, which discovered that a statistician had been paid to write players' papers; and the University of Michigan, which allegedly made illicit payments to players a decade ago.

This new self-flagellation shows that the universities are now at least a tiny bit scared of the NCAA's rule book. But it is hard to believe that any team will win without breaking the rules—and the prizes that such cheating brings are temptingly immense. The Georgia Tech fans, a wise bunch, are not singing too gleefully.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

The budget fight in Massachusetts

The slasher flashes his blade

Mar 13th 2003 | BOSTON
From The Economist print edition

Fresh from the Olympics, the new governor shows his metal

AP

Romney: smile, cut, smile

THE voters of Massachusetts wanted a businessman for governor, and in Mitt Romney they surely got one. Two months after he took office, it is clear that this Republican from the world of corporate restructuring brings to the governorship a wardrobe of tailored suits, a penchant for PowerPoint and a cold eye trained on the bottom line. Last month he brought in a budget that would slice $3 billion off public spending, cutting health-care services and aid to small towns. True to his word, he proposed no new taxes. Instead, he claimed to be saving huge amounts of money by eliminating waste and reorganising state government.

Mr Romney has also picked a fight with one of the state's power-brokers: the president of the University of Massachusetts, William Bulger, a former president of the state Senate whose brother is a gangster on the run. Mr Romney has proposed to eliminate Mr Bulger's $14m-a-year office and his $309,000 salary. Just a matter of money, says the governor; nothing personal intended, and certainly nothing political. Mr Bulger, who probably has enough allies in the legislature to keep his job, has begun to fight back, calling Mr Romney's plans elitist: the rich governor, he maintains, cannot understand the working man's need for affordable education.

Still, it was a stunningly bold opening move by Mr Romney. Was it the act of a naive businessman unschooled in the ways of politics, or of an instinctive politician who knows exactly what he's doing?

The Democrats, who hold 85% of the legislature's seats, are still trying to decide which Mr Romney is. They chafe at his often brusque manner, and complain that he does not consult other people enough. They question whether his plans to reorganise and combine state agencies will truly save millions, or just shift money around. The conspiracy theorists have jumped on an apparent detail: did he publish the budget online, rather than on paper, to save $50,000 in printing costs, or to make the numbers harder for constituents to decipher?

But Mr Romney does not want to be known for his business skills alone. He would like to be called a “bleeding-heart conservative”. His efforts to make welfare recipients take jobs, and Medicaid patients pay token co-payment fees for their treatment, evoke the Gingrichian politics of personal responsibility. The states' nursing homes are already complaining about Mr Romney imposing “bed taxes” on people who cannot pay them. But he also has a soft spot for the homeless; this winter he gave $10,000 of his own money to an ex-servicemen's shelter that couldn't pay its electricity bills. He has appointed a popular green to shape policy on transport, housing and the environment.

A presidential marker?

The Democrats remain largely unmoved. Because they can override the governor's veto, they know that Mr Romney will eventually have to pay them heed. Phil Johnston, the chairman of the state Democratic Party, thinks the lawmakers may draw up a budget of their own. The governor will end up on the sidelines, says Mr Johnston, “because I don't think anybody takes his budget seriously.”

Still, by intertwining his budget with his restructuring plan, Mr Romney has put Democrats in an

uncomfortable position. If they oppose him outright, they may look unreceptive to reform. And, though many of them would privately prefer to raise taxes than to make painful spending cuts, Mr Romney knows there is precious little political will behind that preference. Last autumn the voters came reasonably close to passing a referendum that would have eliminated the state's income tax.

Besides, Mr Romney, whose previous job was running the 2002 Salt Lake City Winter Olympics, is well-schooled in the power of symbolism. Whether or not Mr Bulger loses his university job, the governor has shown that he knows how to crack a whip. And, as a man widely assumed to have ambitions on the national stage, he is aware of how good it would look to get a grip on the Massachusetts budget. The businessman seems, so far, to have learned the art of politics quite nicely.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Lexington

The odd couple

Mar 13th 2003
From The Economist print edition

The second-most-important politician in America is Tony Blair

Get article background

ANYONE depressed about the darkening international horizon—and who isn't?—should consult an internet site for a little light relief. There you will find an exquisitely dubbed version of the saccharine ballad "Endless Love", sung by Lionel Richie and Diana Ross but acted out by George Bush and Tony Blair. "My love, there's only you in my life/The only one that's right", croons George, looking butch but sensitive. A dewy-eyed Tony warbles back: "My first love...You're every breath that I take."

Mr Bush and Mr Blair make an odd couple. Tony embodies Islington Man: an urban trendy with right-on views on everything from trees to guns and a lawyer wife. George is Texas Man: a small-town cowboy with right-wing views on everything and an old fashioned spouse. Tony is a perennial swot, earnest and upwardly-mobile. George is a frat boy who had a serious love affair with the bottle and who probably spent many a jolly evening at Yale debagging the local equivalents of young Tony.

Yet the two could hardly be closer. When Mr Bush addressed Congress nine days after the terrorist attacks of September 11th, in perhaps the most emotional speech of his life, he made a point of thanking Britain's prime minister, who was seated in the gallery. The applause was thunderous. Mr Bush might well have sidelined the United Nations a month ago, had it not been for his sensitivity to his friend's domestic problems. This week, even cruel old Donald Rumsfeld tried to help Mr Blair, by saying he did not really need Britain's 40,000 troops (though he characteristically did more harm than good).

The White House's determination to help the prime minister is hardly surprising. Mr Blair has done more than anyone else to shore up Mr Bush's position, both at home and abroad. For many Americans, he represents the voice of sensible international opinion. Nobody cares what autocrats like the Russians and Chinese think. The French are lampooned as duplicitous cowards. But the British are upstanding guys. Mr Blair provides proof that America is not alone in the world, proof that the "transatlantic rift" runs down the middle of Europe rather than the middle of the Atlantic. The European eight and the Vilnius ten would never have materialised without Mr Blair.

But the prime minister has played a role in American domestic politics, too. To begin with, he helped prevent the war from becoming a partisan issue. To the divided and demoralised Democrats, Mr Blair has

often seemed the leader the party so conspicuously lacks: Bill Clinton reborn with a zipper. His resolute hawkishness helped persuade the Democrats to pass the war resolution and reminded presidential candidates like Dick Gephardt that elections are won by being firm on defence.

More broadly, Mr Blair has simply been far better than Mr Bush at making the case for war, even in America. He has been nimbler on his feet in press conferences, and far more consistent in his reasoning. The fact that he speaks fluent English rather than stumbling Texan gives him an added air of authority. And the fact that he comes from the other side of the Atlantic makes it harder to dismiss the war as revenge for September 11th or unfinished family business. Without Mr Blair's overt support, Mr Bush could easily have ended up looking like a lone cowboy—or Captain Ahab in crazed pursuit of the great white whale.

The irony of this is that in shoring up Mr Bush's position, Mr Blair has ended up endangering his own (see article). Why go to such extraordinary lengths for a fellow politician? One reason is that, when Mr Blair clambered on board the Bush express all those months ago, he never expected the train to end up quite where it has. Who could have predicted that so many countries would have signed Resolution 1441 and yet demanded a second resolution now? Another reason is that the relationship with America has been the cornerstone of British diplomacy for decades. But there are also three more surprising factors at work.

The cost of friendship

The first is that Mr Blair is intensely worried about the core of the conflict, which is weapons of mass destruction. British intelligence has been reporting disturbing facts from Iraq and its neighbours for years (Iraq, after all, was a British creation). Mr Blair brought up the question of weapons of mass destruction in the first meeting he ever had with Mr Bush (and used to discuss it with Mr Clinton before that). As a good multilateralist, Mr Blair seems furious that the UN does not share his concerns.

The second is that Mr Blair is much closer to the Texan than their superficial differences might suggest. A personal bond grew rapidly in the aftermath of September 11th, when they talked almost every day on the phone. For a traumatised Mr Bush, the British prime minister was perhaps the only foreign leader he could talk to as a friend rather than a negotiating partner. The two men have long shared a deep religious faith (a clearly embarrassed Mr Blair has hotly denied the notion that they even pray together). Now they seem to have added a commitment to using foreign policy to improve the world. Mr Blair has always been a liberal interventionist, while Mr Bush was shocked out of his keenness to keep diplomacy “humble” only by the trauma of September 11th. But when Mr Bush talks about spreading democracy around the Arab world or pledges $15 billion to fight AIDS in Africa, he is talking Mr Blair's language.

Finally, there is the question of power. Mr Blair will pay a heavy price if he and Mr Bush go to war without UN blessing. But imagine first a rapid war, then proof that Iraq was indeed a monstrous regime bent on acquiring deadly weapons. Mr Blair has already demonstrated his leverage in Washington by pushing Mr Bush to work through the UN. In the next few months he may be the only European who will be able to restrain the Bush administration from ditching multilateralism entirely.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Canada and the United States

The awkward couple

Mar 13th 2003 | TORONTO
From The Economist print edition

There is no love lost between Jean Chrétien and George Bush. Their countries' relations are more complicated

THEY share the world's longest undefended border and do more business together than any other two countries. Add the often jarring clash of politics, personalities and world events, and it is not surprising that relations between Canada and the United States are seldom simple. Even so, they look unusually strained at the moment. This is only partly because of disagreements about war in Iraq. And though some Canadians are happy to be unhappy with their big neighbour, others, including many businessmen, are not.

The discord is embodied in the barely-hidden mutual disdain between Canada's prime minister, Jean Chrétien, and President George Bush. It shows up in public opinion, too. A recent survey by Ekos, a polling firm, found that 51% thought that Canada's relations with the United States had deteriorated over the past year. In another poll, only 40% of respondents in (mainly French-speaking) Quebec, the most anti-war province, held a generally favourable view of the United States, a drop of 20 percentage points compared with nine months ago.

Canadians' feelings towards their giant southern neighbour are inevitably complicated and ambivalent. Canada has long defined itself by its differences with the United States. Canadians like to contrast their European-style welfare state, especially their health system, with the devil-take-the-hindmost individualism of the United States. They lack Americans' scepticism towards government. No wonder: Canada was the bit of North America that stayed loyal to Britain when the United States broke away over two centuries ago.

Canada is thus the land of the Tories, the counter-revolutionaries who jibbed at the American Whigs' revolt. While the American Declaration of Independence celebrates “life, liberty and the pursuit of happiness”, Canada's founding document promises “peace, order and good government”. Little has changed: in the Ekos poll, only 8% of Canadians say they would like their country to become more like the United States, and 40% less so.

Even so, Canada has—along with Britain—traditionally been one of the United States' closest allies. The two countries have a joint defence command, and have fought many wars together; Vietnam was the main recent exception. But whereas one Canadian in three draws comfort from living next to the

superpower, a similar number finds such proximity threatening. Suspicious of raw power, Canada has always been a strong supporter of multilateralism and the United Nations.

So it is not surprising that Iraq is causing much friction. Mr Chrétien has called for the weapons inspectors to be given more time, wants all measures to be decided by the UN, and has been reluctant to commit forces to the Gulf. Some of his supporters have been more outspoken. Last month, Carolyn Parrish, a backbench MP from Mr Chrétien's Liberal Party, said to reporters, when she thought the microphones were off, “Damn Americans. I hate those bastards.” That earned her no official reprimand, merely applause when she later appeared on a television talk-show.

To some Americans, especially those on the extreme right, Mr Chrétien's stand smacks of treachery. Pat Buchanan, a former presidential candidate, refers to Canada as “Soviet Canuckistan”.

In part, the friction is personal. Mr Chrétien's relations with Mr Bush were doomed before they began, since the prime minister openly cheered for Al Gore during the 2000 campaign. In return, Mr Bush has allowed himself some slights of his own. Flouting tradition, his first foreign excursion was not to Canada but to Mexico. He made no mention of Canada among the countries that helped out after September 11th, even though thousands of Americans had been given hospitality when planes had been diverted to Canadian airports. And he was slow to apologise after four Canadians had been accidentally killed by American bombing in Afghanistan last year. Mr Chrétien has yet to be invited to visit Mr Bush's ranch.

Petty stuff, perhaps. But little goodwill has been shown in bigger matters. Canada's trade with the United States amounts to almost $400 billion a year. Disputes are frequent, but most are kept within manageable limits. Not so one involving American duties on softwood lumber, which over the past nine months has cost thousands of jobs in Canada and increased housebuilding costs in the United States. Canada is confident that it has right—and the WTO—on its side. Mr Bush, many Canadians believe, could settle the affair with a telephone call if he chose to.

Since the two countries signed a free-trade agreement in 1988, Canada has prospered but its dependence on the United States, which takes 85% of its exports, has increased. Canadian business is alarmed at the deepening chill. Last week, two business lobby-groups urged Mr Chrétien to muzzle America-bashing in his party. Otherwise, they fear, Americans may retaliate by blocking further integration.

But will Mr Chrétien take any notice? His instinct in almost a decade in power has often been to do the opposite of what Brian Mulroney did as Canada's Conservative prime minister from 1984 to 1993. Mr Mulroney was chums with Presidents Ronald Reagan and George Bush senior, and negotiated the free-trade agreement. He left politics with his popularity—and that of his party—barely in double digits; the Tories have yet to recover.

By contrast, Mr Chrétien's Liberals still dominate the opinion polls, with more than twice the support of any other party. The conservative Canadian Alliance, the most pro-American force in Parliament and the most critical of the recent outbursts, is in the doldrums.

Living in the cultural and political penumbra of the world's most powerful nation, Canadians always feel their identity is at risk. Now, maybe, they also feel ignored, or taken for granted. Perhaps Liberal prime ministers and Republican presidents just do not mix. One way or another, it can make for good politics in Canada not to cosy up too closely to the United States. But it was a sickly economy, rather than pro-Americanism, that brought down Mr Mulroney. The free-trade deal is now popular. Whatever their differences, Canadians know they have no choice but to get along with their only neighbour—and anyway, *au fond*, as they say in Quebec, much more unites them than separates them.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Quebec's election

Landry bites back

Mar 13th 2003 | MONTREAL
From The Economist print edition

Can the Parti Québécois stay in power?

Get article background

IT HAS been more than four decades since a political party won three successive provincial elections in Quebec. But after a remarkable turnaround in fortune, the province's premier, Bernard Landry, and his Parti Québécois (PQ), look well placed to hang on to power in an election called for April 14th.

Six months ago Mr Landry and the PQ, which favours independence from Canada, were running third in the polls and seemed finished. Half-a-dozen ministers had quit the government in the preceding year. Scandals left it with an unfamiliar taint: corruption. Heading the polls were, first, Mario Dumont, a fresh, dynamic face leading a new moderate nationalist force, Action Démocratique du Québec (ADQ), and then Jean Charest, the Liberal leader.

But as it came under public scrutiny, ADQ's bubble deflated. Swing voters, mainly francophones outside Montreal, continue to resist Mr Charest. Mr Landry suddenly found himself with a growing lead in February's opinion polls. On March 12th, the day after the provincial budget, he promptly called the election.

Over the winter, Mr Landry announced several popular measures. He promised to cut long waiting lists for surgery with increased health spending—the issue on which Mr Charest had long promised to fight an election. And in a nod to his party's social-democratic roots, and to win over young professionals from the ADQ, he pledged to make a four-day work week available to parents of children under 12.

He also quietly cheered up his image. Gone was the cold, arrogant, sharp-tongued technocrat. In his place is a jolly, avuncular leader, seen playing with his grandchildren and appearing on lighter chat shows. A pretty new companion, with a slightly racy past as a singer and disrobing actress, has also helped Mr Landry, a widower.

A surprisingly strong economy has helped even more. Job growth in Quebec, usually a laggard, has outpaced the national rate. Montreal is enjoying a building boom. With six balanced budgets in a row, the PQ, once prone to lavish social spending followed by cuts, is now seen as just as fiscally responsible as its rivals. Meanwhile, Mr Landry is not pushing his party's raison d'être: secession from Canada. But neither is he soft-pedalling it (a steady 40% of Quebeckers support the idea). That has left his opponents short of targets.

Mr Landry could still stumble. His acid tongue is never far away. By contrast, Mr Charest is a good campaigner. And even if ADQ has faded, its presence adds unpredictability. But Mr Landry has turned himself into the man to beat, and given his party a chance of making history.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Politics in Mexico

Defeat, sort of

Mar 13th 2003 | MEXICO CITY
From The Economist print edition

Local elections give little cheer to Vicente Fox or his main opposition

Fox dressed up, the voters stayed home

Get article background

IN JULY Mexico will vote for the lower house of Congress in a mid-term election which is set to make or break the presidency of Vicente Fox. If his conservative National Action Party (PAN) wins control of the legislature, Mr Fox's ambitious reforms should prosper. But if the opposition Institutional Revolutionary Party (PRI) does well, the rest of the president's term is likely to be fruitless.

So local elections held in the state of Mexico on March 9th were watched with more than usual interest. One Mexican voter in eight lives in the state, which surrounds the capital, and its mix of rural towns and industrial and residential suburbs mirrors the country at large. But its voters disappointed the pundits. For a start, only 40% of them turned out, and those who did gave a muddled message.

On the face of things, the opposition did quite well. Allied this time to the Green party, the PRI won 34%, up two points from the last election in 2000. The leftish Party of the Democratic Revolution saw its vote rise from 20% to 23%. By contrast, the PAN saw its vote plummet to 28%, from 37% in 2000. It also lost five town halls (out of a total of 124). Roberto Madrazo, the PRI's leader, hailed this as a clear victory. Many political analysts agree. They saw the result as a personal setback for Mr Fox. Instead of following tradition and staying aloof from local politics, he had campaigned for PAN candidates.

But the PAN is not panicking. It held its main mayoralties. Rubén Mendoza, its outgoing mayor in Tlalnepantla, a large suburb which his party held, says the PRI spent very heavily. Spending on this scale could not be repeated across the country in July. And though the low turnout may suggest disillusion with Mr Fox, it hardly shows great enthusiasm for the PRI.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Security in Venezuela

A lack of clarity on terror

Mar 13th 2003 | CARACAS
From The Economist print edition

More doubts about President Chávez

Reuters

Is it only Hugo's rhythm that's explosive?

IS HUGO CHAVEZ, Venezuela's erratic strongman, friendly with terrorists? It is a charge sometimes hurled at him by his more diehard conservative opponents, so far with little or no evidence. Now the question is more widely asked.

At a conference in Miami last week, General James Hill, who as commander of Southern Command is the United States' top soldier for Latin America, talked of his worries about Margarita, a Venezuelan tourist island in the Caribbean. He said it was a haven for activists from two Middle-Eastern extremist groups, Hamas and Hizbullah. Last month, Hasil Rahaham, a Venezuelan Muslim whom police suspect of links to al-Qaeda, was arrested at London's Gatwick airport after a grenade was found in his baggage. He had boarded the flight in Caracas. Days later, powerful bombs damaged the Colombian and Spanish embassies in Caracas. Opponents blame radical supporters of Mr Chávez.

The president, who has survived a recent two-month general strike by the opposition, claims to be leading a “Bolivarian revolution”. His political history of radical nationalism gave him colourful friendships: it is hard to judge whether these involved naivety or something more sinister. As a young army officer, he was close to Venezuelan guerrillas with links to Saddam Hussein and North Korea. After being democratically elected as Venezuela's president in 1999, he exchanged cordial letters with Ilich Ramírez Sánchez (“Carlos the Jackal”), a notorious Venezuelan terrorist serving a life sentence in a French jail.

In 2000, Mr Chávez became the first foreign leader to visit Baghdad since the Gulf war. He criticised the American attack on Afghanistan, saying “you can't fight terror with terror”. His more radical supporters demand that Mr Chávez oppose any attack on Iraq, and have looked askance at his current overtures to the United States, which include a promise to keep supplying it with oil.

None of this amounts to credible evidence of presidential complicity in terrorism. But Venezuelan intelligence agents say that operations to keep track of terrorist suspects have been given a low priority by Mr Chávez's government. They suspect that the Arab community in Margarita raises funds for terrorism—but in the Middle East, not Venezuela.

Claims of Middle-Eastern terrorism are not new in Latin America. American officials have long been watching the Levantine traders of the “tri-border” area where Argentina, Brazil and Paraguay meet. On March 7th, an Argentine judge asked Interpol to arrest four former Iranian officials in connection with a 1994 bombing of a Jewish community centre, which killed 85 people. Iran denies any involvement.

Probably more damaging to Mr Chávez are claims (which he denies) that he is friendly to guerrilla groups in next-door Colombia. Mr Chávez has declared Venezuela “neutral” in the conflict between Colombia's democratic government and its drug-funded rebels. That goes down badly with Colombians.

Colombia is especially annoyed at Venezuela's refusal to agree to joint anti-guerrilla operations along the porous border. Álvaro Uribe, Colombia's president, said recently that his government is “ready to fetch the terrorists that mistreat the Colombian people, from Venezuela or from whatever place they may be hiding”. This week, Venezuela's army chief replied that his troops would indeed drive out any rebels who cross the border.

Mr Uribe also wants Venezuela to define the leftist guerrillas of the FARC and ELN as terrorists. Venezuela's foreign minister says this would be “interference” in Colombian affairs. But Colombians note that Mr Chávez often describes as “terrorists” his own political opponents.

Officials from both countries say that the guerrillas use Venezuela for supplies and as a transport corridor, as well as extorting funds from its ranchers. Mr Chávez has downgraded border security. The army's most senior general (jobless because of his political dissidence) claims that there are three Colombian guerrilla camps inside Venezuela.

While it has been preoccupied with Iraq, the United States has been relaxed about Mr Chávez (although it all but applauded a military coup against him last April). But the Americans give much military aid to Colombia. And terrorism is an issue on which they are unlikely to welcome ambivalence from Mr Chávez.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Cuba and the EU

Wary partners

Mar 13th 2003 | HAVANA
From The Economist print edition

Trade and the single party

Get article background

THE countries of the European Union account for some 40% of Cuba's trade, as well as much of its foreign investment and many tourists. The EU provides the island's communist government with *euro*15m ($16.5m) a year in development aid. The euro is legal tender at the island's main tourist resorts. To set the seal on what seems like a flourishing relationship, this week the EU opened new offices in a beautiful mansion in Miramar, Havana's least shabby neighbourhood.

But all is not sweetness between Cuba and Europe. Cuba wants to join the Cotonou Agreement, a preferential trade and aid pact with 78 former European colonies. The European Commission and the Cotonou countries have endorsed its application. But the EU's members are divided, because the agreement aspires to close political co-operation among its members, and Cuba remains a one-party state.

Since 1996, the EU has ruled out closer ties with Cuba until Fidel Castro's communist government takes steps towards democracy and respect for human rights. This has not happened. So Cuba is the only Latin American country with which the EU has no formal agreement for economic co-operation. The EU's new office in Havana will deal only with trade matters.

All of this angers Mr Castro. He says it is interference in Cuba's internal affairs, and dovetails with America's trade embargo against the island. In 2000, he broke off political talks with the EU and cancelled an earlier application to join Cotonou.

But over the past 18 months, contacts have been renewed. That is partly because Cuba's economy is again in trouble. A slump in tourism and the high price of imported oil have left Cuba short of foreign exchange. Last year, it defaulted on many short-term loans. Meanwhile, Europeans have watched as leaks spring up in the United States' trade embargo against the island. American companies now export food to Cuba, and are paid in cash. Some Europeans reckon closer co-operation might stave off American competition.

But only a unanimous EU vote can get Cuba into Cotonou. Proponents, such as Spain and France, argue that inclusion would increase the EU's political leverage with Mr Castro. Opponents, including Britain and Sweden, doubt this. A decision may not come until next year. As on so many things, the EU may find it hard to make up its mind.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

North Korea

Expecting trouble?

Mar 13th 2003
From The Economist print edition

AP

There could be more fireworks to come from the obstinate North

Get article background

WHAT does it take to get the world's attention these days? North Korea's leader, Kim Jong Il, is thought to be planning a third missile test in as many weeks, while demanding direct talks and a non-aggression treaty with America to resolve the increasingly dangerous stand-off over his suspected nuclear-weapons programmes. What might Mr Kim be tempted to try next? And what could, or should, anyone be doing about it? Differing views over that question have been straining relations between America and its ally, South Korea, as President Roh Moo-hyun prepares for his first visit to the United States, possibly as early as next month.

In fact, North Korea still has plenty of fireworks left to loose off. So far it has been testing only relatively short-range anti-ship missiles: on March 10th it fired what appeared to be an upgraded version of a Chinese silkworm missile from Sinsangri some 110km (68 miles) into the Sea of Japan. But there are reports that it is also preparing to test a much farther-flying ballistic missile, called a Nodong, whose 1,300km-range puts Japan in danger. And in January it tested a booster rocket for an even longer-range Taepodong missile that could threaten America's west coast.

A resumption of ballistic-missile testing would cause alarm, but there is no indication that North Korea plans to stop there. Since October, when Mr Kim owned up to an illicit uranium-enrichment programme, he has tossed out international inspectors, pulled out of the Nuclear Non-Proliferation Treaty, and restarted his long-frozen plutonium-producing reactor at Yongbyon. All this has seemed deliberately designed to raise the spectre in Iraq-preoccupied America of a two-front crisis, and so increase the pressure on President George Bush to negotiate.

So far, at least, North Korea officials have insisted that their restarted nuclear programme will be for “peaceful” purposes. That too could change. Tests to the power system of a reprocessing

plant at Yongbyon suggest that North Korea may soon start extracting plutonium from a stock of 8,000 spent fuel-rods. That, says Mohamed ElBaradei, the head of the International Atomic Energy Agency, the UN's nuclear watchdog, would be a “disaster”. North Korea could certainly quickly amass enough plutonium for five or six more bombs (to add to the couple it may already have), or it could sell some plutonium to proliferators elsewhere. This week James Kelly, an American official, told a Senate committee in Washington that the North could produce enough enriched uranium to make nuclear weapons in months.

What can be done about it? South Korea's President Roh rules out any resort to force; America does not, even though Mr Bush still says this would be a very last resort. Having at first refused to talk to North Korea at all until it closed down all its nuclear-weapons-related activities, America has since backed down a little. It recently announced that it would send up to 100,000 tonnes of humanitarian food aid to North Korea this year. And it has said it will talk to the North about how it can come into compliance with its non-nuclear obligations, but only as part of a wider multilateral dialogue involving others affected by North Korea's behaviour.

South Korea, China and Russia have all wanted America to talk directly to North Korea, which has so far turned the multilateral idea down flat. But America may at last be getting its message across. It was forcefully restated at the weekend by Mr Bush's national security adviser, Condoleezza Rice. She pointed out that, since North Korea has torn up its previous 1994 bilateral agreement with America (and much else) by resuming unsupervised nuclear activities, it was going to take much more pressure this time if a deal was to be done, “so that the North Koreans know there is no way out.”

On March 12th, South Korea's foreign minister signalled a shift in that direction. He said that the new government in Seoul backed multilateral diplomacy, even though talks between America and North Korea would also be necessary to break the deadlock. Meanwhile South Korea, Japan and America have all been putting out unofficial feelers to North Korea, with China and Russia involved behind the scenes. It remains to be seen, however, whether a formula can be found that North Korea will accept.

After what has been by all accounts a lively debate of its own, the South Korean government seems to have recognised that dealing with North Korea's worrisome behaviour needs closer co-ordination with America. The Bush administration has been increasingly upset at what it sees as Mr Roh's unhelpfully soft line. He had failed to criticise the missile tests. And when North Korea's fighter jets recently buzzed an American reconnaissance aircraft flying in international airspace off its coast, Mr Roh had called on America, not North Korea, to show restraint. Worried that North Korea might take more aggressive action, America has moved some two dozen long-range bombers to Guam—a “prudent” defensive measure, it says.

Don't say goodbye

For its part South Korea's government was alarmed when America's secretary of defence, Donald Rumsfeld, talked openly of moving some of the 37,000 American troops in South Korea away from the front line or even out of the country (though the two governments were due to take up other matters concerning the stationing of the Americans next month). The prime minister, Goh Kun, said the troops were still vital as a “trip wire” to signal America's commitment to South Korea's defence in case of attack from the North. And the defence ministry has publicly rebuked the North Koreans for their recent provocative behaviour.

Mr Roh may still be no more inclined to consider punitive action against North Korea than before (although Japanese officials, who are usually equally reticent, were this week musing aloud about the efficacy of economic sanctions should North Korea launch a ballistic missile or start making more plutonium). But his advisers seem to recognise that by allowing the beginnings of a rift to develop with America in public, South Korea may have encouraged the North to believe that its aggressive tactics were paying off.

Increasingly, too, the nuclear stand-off is harming South Korea's economy: a report published on March 10th by a Korean research institute forecast that if the crisis continued, economic growth could fall this year to 1.4%, compared with an estimated 6.2% last year. Mr Roh has lots to ponder on before he meets Mr Bush.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

China

Car-crazy

Mar 13th 2003 | BEIJING
From The Economist print edition

The middle class starts a new revolution

DURING last month's lunar new year festivities in Beijing, thousands flocked to “automobile temple fairs”, a variant of a centuries-old tradition. The automobile version borrows little from the past. No temples required, just plenty of auspicious red and gold decorations, food stalls, toy stands and of course cars (for sale or just to admire). As last year's 56% increase in sales of saloon cars might suggest, China is beginning to develop an automobile culture.

Cyclists are being overtaken

The car-buying craze began as manufacturers in China cut prices last year, to establish market share. They were concerned about a possible surge in imports (yet to materialise) due to tariff reductions resulting from China's accession to the World Trade Organisation in 2001. Industry experts say sales growth this year may slow, but will still be impressive as the infant business of car loans expands.

China calls this evidence of a third consumer revolution. In the first revolution, more than two decades ago, bicycles and household electrical goods were hot commodities. In the 1990s it was electronic goods. Now a minority is ready to commit the equivalent of many months' salary to personal transport. But industry experts say China's emerging automobile culture is being shaped more by young people's desire for a lifestyle change than by a need to get to work more easily. In big cities taxis are plentiful and, for middle-class people, readily affordable.

Of the 1.12m saloons sold nationwide last year, more than 90,000 were bought by private individuals in Beijing. Lin Lei, president of Sinotrust, a marketing-research firm, says that most buyers are in their 20s or 30s and grew up with little if any first-hand experience of cars. This generation, he says, mainly wants to experience the concept of owning a car and to enjoy the sense of freedom it offers. Toyota, a Japanese carmaker, has tried to appeal to this market with an advertising slogan in Chinese, which translates “Even further, even freer”.

Since sales to private buyers began to pick up in the late 1990s, from virtually zero at the beginning of the decade, signs have begun to emerge of how citizens are using this freedom. In villages around Beijing, many farmers have placed signs on their houses offering meals and accommodation to passing young motorists wanting a taste of rural life. Several big shopping centres with large car parks have been built in the suburbs. A drive-in movie theatre which opened five years ago says its business is growing briskly. Newspaper stands offer numerous glossy car magazines aimed at wealthy young men. All this is good news to a government that has spent tens of billions of dollars on an extensive network of toll highways in the past few years and sees auto manufacturing as a big contributor to future growth.

Optimists see many years ahead of rapid growth in car sales. Mr Lin believes buyers currently think mainly about a car's price (the best sellers currently are midsize and compact cars, mainly produced in co-operation with foreign companies such as Volkswagen, Citroën and Daihatsu). In future, they will think more about brands and the image that goes with them. As the now relatively sluggish second-hand car market begins to develop, people will have more incentive to trade in. And as incomes rise, private car ownership will gradually spread.

But the days of mass car ownership may still be a long way off. Graeme Maxton of Autopolis, an automotive consultancy, estimates that China will sell 4.5m cars annually by 2010, a rapid pace of growth but one which could tail off once the demands of the wealthy minority are satisfied and the majority still struggles to earn enough for a car.

The increasing congestion of urban roads may also act as a brake. Almost as fast as Beijing constructs new urban highways they become clogged with traffic. Qie Xiaogang, an official at Beijing Asian Games Village Automobile Exchange, the city's biggest car market, believes the traffic jams are not yet deterring buyers. He says they want a car now for fear that restrictions might be imposed later.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Australia and East Timor

A squabble over oil

Mar 13th 2003 | SYDNEY
From The Economist print edition

The Timorese say they were bullied

Get article background

BULLYING is not new to East Timor. After living under Indonesian occupation for almost 25 years, the tiny former Portuguese colony won its independence last year after much chaos and bloodshed. As they face up to the realities of life on their own, many in East Timor are now starting to wonder if they have rid themselves of one coercive neighbour only to deal with another one, this time Australia.

The issue at stake is the vast oil and gas reserves under the Timor Sea, which separates Australia and East Timor. For Australia, already rich in oil and gas deposits of its own, it is hardly a question of life or death. For East Timor, South-East Asia's poorest nation, it represents the difference between gaining a foundation for economic independence and being propped up by aid. On March 6th, the two countries signed an agreement dividing the Timor Sea's wealth. Accusations followed in the Australian Parliament that the conservative coalition government, led by John Howard, had “bullied” and “blackmailed” Mari Alkatiri, East Timor's prime minister, into accepting a deal that favoured Australia; East Timorese officials were quoted in the Australian press saying that Mr Howard and his ministers had treated Mr Alkatiri “as if he was a child”.

A leaked transcript of talks in Dili, East Timor's capital, in November between Mr Alkatiri and Alexander Downer, the Australian foreign minister, appeared to bear out the accounts. During the talks, Mr Alkatiri accused the Australians of offering their neighbour “scrapings off a plate”. Mr Downer retorted, “Your claims go almost to Alice Springs. You can demand that for ever for all I care...but if you want to make money you should conclude an agreement quickly.” The Australian minister added, “We are very tough. We will not care if you give information to the media. Let me give you a tutorial in politics — not a chance.” The transcript has not been denied by the Australian government.

Most of the Timor Sea's wealth lies in an expanse once known as the Timor Gap, and renamed the “joint petroleum development area” under the Timor Sea Treaty that Australia and East Timor signed last May. After much wrangling, Australia agreed that East Timor would receive 90% of government revenues from Bayu-Undan, the main gas field within this area, about A$26 billion ($15 billion) over its full life. That left Greater Sunrise, another big gas field that lies more problematically only partly inside the area. East Timor argued that it should have the lion's share of revenues from Greater Sunrise. Based on the seabed boundary halfway between the two countries, Greater Sunrise would be within East Timor's economic zone under the UN's Law of the Sea.

But Australia last year withdrew from the Law of the Sea convention, and from the International Court of Justice's jurisdiction on maritime-boundary questions. Australia recognises instead a boundary that Australia and Indonesia defined between them in 1972 (excluding the “Gap”), a boundary that puts Greater Sunrise mainly in Australian waters. The Howard government delayed ratifying the Timor Sea Treaty until a deadline in early March, leaving East Timor with the grim choice of demanding greater revenues (and risking the agreement collapsing) or accepting Australia's terms. Under those terms it will receive 90% of revenues due from just the one-fifth of Greater Sunrise that lies within the development area: by one estimate, about A$8 billion against the A$40 billion Australia will take from the rest of the

field.

Australia hailed the signing as giving certainty to the international consortia investing in the Timor Sea; a big gas deal from Bayu-Undan is being concluded with Japan. But the East Timorese must be left wondering about another of Mr Downer's reported homilies to their leader: “On principle we're surprisingly inflexible...To call us a big bully is a grotesque simplification of Australia.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD ASIA

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Bangladesh's NGOs

Being well-meaning is no protection

Mar 13th 2003 | DHAKA
From The Economist print edition

When humanitarianism gets caught up with politics

Get article background

THERE are about 20,000 non-governmental organisations (NGOs) in Bangladesh, probably more than in any other country. Is their influence beginning to wane? Yes, says Qazi Faruque Ahmed, president of Proshika, which has about 6,000 full- time employees. No, says Fazle Hasan Abed, founder of the Bangladesh Rural Advancement Committee (BRAC), the largest micro-finance lender in the world, with more than 60,000 employees.

The two organisations have made contrasting progress since the coalition government led by Khaleda Zia's Bangladesh Nationalist Party came to power in 2001. BRAC has expanded into Afghanistan and has plans for India. Its teachers and health-care people work throughout Bangladesh. Its annual budget is $174m. More than 3.5m people use its finance services. It runs a university, poultry farms and a chain of shops selling handicrafts made by its predominantly female workforce.

“It is filling a power vacuum that to some extent should be occupied by elected governments,” says M.M. Akash, a professor at Dhaka University. “Its influence touches almost everyone.”

But while BRAC is expanding, Proshika has contracted. The NGO claims it has had its activities curtailed because the government believes it has links with the Awami League, the main opposition party. Mr Ahmed says the government has no evidence of such links. But he says that Proshika supports “women's empowerment, good governance and promotion of human rights”, and that fundamentalist religious parties in alliance with the government “are very much against these activities”.

Mr Ahmed reckons that as much as $40m due to Proshika from overseas donors has been stopped by the government. He claims that his home and Proshika's training centre have been raided on government orders, and says that two members of Proshika have been charged with treason.

Still, the government maintains that employees of Proshika campaigned for the Awami League in rural areas during the 2001 general election. So bitter is the division between the Bangladesh Nationalist Party and the Awami League that such partisanship is considered unforgivable. However well-meaning the NGOs of Bangladesh may be, they are continually at risk of being caught up in the country's stormy politics.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD ASIA

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Health care in Japan

Up go the doctors' bills

Mar 13th 2003 | TOKYO
From The Economist print edition

Problems of an ageing nation

Get article background

THANKS to a mandatory national health insurance system, medical care, most of it competent, is available to almost everyone in Japan. Patients can go to any hospital or doctor. The service is not free, but medical bills have been reasonable. The Japanese live longer than any other people in the world, and the infant-mortality rate is one of the lowest. But the system is a big and rising cost to the state: currently ¥31 trillion ($265 billion) a year, roughly 6% of GDP. More than a third of the money goes to treat people over 70, one-eighth of the population.

By 2025, predicts the Ministry of Health and Welfare, one in four Japanese will be over 70. Health-care costs will balloon to ¥70 trillion, half of which will be used to treat the elderly. From April 1st, in a controversial move by the government to find more money for the service, salaried workers will have to pay 30% instead of 20% of their medical bills. Doctors, traditionally stalwart vote-collectors for the ruling Liberal Democratic Party, fear that hard-up patients will forgo visits. The sagging economy has already forced a number of clinics to close. Opposition parties have submitted a bill in parliament calling for a freeze on dearer health care.

Some critics say that hospitals and clinics should be made to cut their expenses before their patients are made to pay more. They point to the practice—admittedly, allowed by the government—of medical centres buying medicine below prices set by the government, and pocketing the difference. Nor have patients escaped criticism. They are over-medicated, it is claimed, and are put through too many costly tests.

Hideya Sakurai, of the Japan Medical Association (JMA), says these practices are changing. He points out that doctors' consultation fees, also regulated by the government, were lowered (a bit) last year. He says the government should raise money for health care by increasing taxes on cigarettes, which are cheaper in Japan than in many other rich countries.

The government is also under pressure to raise the quality of medical care. Though good for standard procedures, Japan is said to be falling behind other industrialised countries in keeping up with new medical technologies. Private companies are not allowed to operate hospitals or clinics for profit. Much cosseting by the health ministry has led to complacency among doctors.

The government is now considering partially deregulating the medical industry to allow medical groups to operate in special “structural reform zones” on a businesslike basis. This has won plaudits from medical-reform advocates, who believe successful hospitals could offer even better care based on top technology. The biggest problem for the government is how to placate the JMA. It is staunchly opposed to the plan—and doctors remain an important influence at election time.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Indian politics

Uttar nonsense

Mar 13th 2003 | LUCKNOW
From The Economist print edition

The way politicians behave in India's most populous state is a crime

IF UTTAR PRADESH were a country, its 170m people would make it the world's sixth-biggest. As a state of the Indian union, its dirty, bitter, caste-based and often violent politics still make waves that spread beyond its borders. So does its scandal-plagued chief minister, Mayawati, who is an important leader of the Dalits, the group at the bottom rung of the Hindu caste-ladder, once known as untouchables. This month she was seen on video soliciting bribes, and has had to admit to dipping into the government purse for her birthday party. Lesser politicians might be drafting their resignation speeches. For now, however, Miss Mayawati appears, well, untouchable.

The secrets of her solidity are twofold: the staunch support of her Dalit power-base, which helped her Bahujan Samaj Party (BSP) win nearly a quarter of the votes and seats in elections for the state assembly last year; and an unlikely coalition with the Bharatiya Janata Party (BJP), the Hindu-nationalist group that leads the central government. Uttar Pradesh's upper castes, vengeance for whose past and present injustices is the BSP's life-blood, are an important part of the BJP's support. Yet both Dalits and BJP seem remarkably tolerant of Miss Mayawati's foibles.

Their patience was tested by her lavish birthday party in January, and again by the revelation that some of the cost came from a contingency fund, more usually earmarked for emergency waterworks. Worse was the release this month by the Samajwadi Party, the main opposition in the state, of a video. It showed her demanding a share for party coffers of the money that assemblymen rake off from funds the government allocates them for development work. She has defended herself on both counts: she pointed out that great Indian leaders such as Jawarhalal Nehru often had their birthdays marked at public expense (“Presumptuous hussy,” hissed her detractors), and claimed the video was doctored.

Many of her supporters, however, seem not to care anyway. For them, at last a Dalit is giving as good as she gets. The BJP is more squeamish. But its leaders in Delhi think an alliance with Miss Mayawati is worth a little local difficulty: she may deliver a decisive block of seats in the national parliament to be elected next year. Even outside her own state, she may help unite the Hindu vote. For this, says Samajwadi's Amar Singh, they are ready to take any amount of spit.

Local BJP leaders, however, are distressed at the alienation of their high-caste support. Miss Mayawati's selective application of anti-terrorism laws is an especially sore point. Rajja Bhaiyya, a local warlord, once a member of a BJP government in the state, has been locked up, after a search of his palaces uncovered huge caches of arms. Few fret for him. But it seems unfair that Miss Mayawati has extended the hand of friendship to many other thugs and convicted criminals.

Uttar Pradesh is a particularly acute example of the increasing criminal involvement in Indian politics. In essence, the crooks now cut out the middleman and run for office themselves. In last year's elections, 910 candidates had criminal cases pending.

Morale in the civil service, meanwhile, has been dented by Miss Mayawati's policy of transferring officials faster than their chairs can swivel. What the World Bank tactfully calls a progressive deterioration in governance has had a predictable effect. Uttar Pradesh is falling behind other states in stimulating growth and in cutting poverty, though its population includes 8% of the world's poor.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

A city prepares for war

Iraqis await the inevitable

Mar 13th 2003 | BAGHDAD
From The Economist print edition

Reuters

The people of Baghdad dig shelters, stack sandbags and drive recklessly

Get article background

CHAUFFEURS carrying journalists around Baghdad are keen to show their love for their leader, so the radio wails eulogies to Saddam Hussein. In private, however, Iraqis are more likely to tune in to broadcasts from abroad, such as the French Arabic service, Monte Carlo, the American government's Radio Sawa and, increasingly, the Voice of Iran. “If we have it from two sources, we know it's true,” says Abu Abbas, a retired officer. Government officials watch CNN.

Iraqis are better informed than you might expect, and less ideologically monolithic than their state media suggest. Cafés murmur with criticism, even though this has cost some critics their tongues. Photocopies of samizdat poems circulate. There are even Saddam jokes.

Baghdadis like to show off the guns with which they vow to resist the superpower, but some may have other uses in mind. Iraqis are divided as to whether the Americans are coming as liberators or oil-raiders. The first Arab state to gain its independence in the 20th century does not relish the humiliation of being the first to lose it in the 21st.

The middle classes, meanwhile, may wish to defend their plush bungalows against armed looters. Mr Hussein has promised to fight in the streets, a prospect that terrifies all but the bravest or most foolish Baghdadis. The poor Shias who live in slums around Baghdad tremble to think what their ruler may do to them before he goes. Sunnis shake at what the Shias might do in revenge. Christians worry too; extremists accuse them of being agents of the American “crusaders”. Father Sharbil Elias, a Chaldean monk, says that a quarter of his flock has bolted.

Fretful, distracted drivers crash so often that pile-ups clog the streets. Pedlars hawk canaries, to detect gas. In al-Thoura, the unlit and unpaved suburb where half of Baghdad's 5m people are crammed, log-and-sandbag barricades rise above the sewage that swamps the streets. “They're not just to defend against the Americans,” says a Baath party apparatchik, “they're to hold back the mob.” A Sunni businessman remarks, ominously, that the security forces have experience of crowd control.

In posh parts of the city, shopkeepers are packing up their wares, and hiring guards to defend their

villas, before fleeing to Syria, the one country whose borders are still open. The cost of a taxi westwards has doubled, as thousands throng across the Euphrates river, in anticipation that the bridges will not be there much longer.

Most Baghdadis are too poor to pay to escape, and so look to God for salvation. “My students are of a new generation that is religious and scared,” says a university lecturer. He recalls the days when 2m Iraqis visited Europe each summer. Now that Iraqis are poorer, no one wants them. Even the elite, he laments, have rarely been farther afield than Jordan.

In the lull before the bombs start to fall, Iraqis are hoarding food, kerosene and gas, rendering their homes as flammable as oil barrels. This week, Baghdad reported its first casualties of war, after a jerrycan exploded, killing a family of four.

Some fear that America's more powerful pyrotechnics will cause irreparable damage to the city. Architects predict that the tremors from thousands of bombs could reduce the rickety Old Medina of Baghdad to half-bricks. Old-timers wander its dilapidated courtyards, gazing perhaps for the last time at the lattice balconies that recall the age when caliphs ruled and Iraq was arguably the world's most enlightened polity. The Iraqis who struggled to rebuild Baghdad's bridges, museums and shrines after the last Gulf war are not exactly overjoyed at the prospect of seeing them knocked down again.

Even the president's dozen-odd, rubble-bound palaces evoke pangs of regret. “I hate those palaces,” says a professor at Baghdad University. “But they were built by Iraqis and when I drive past, I wonder, does this destruction have to be?”

Bombs, then maybe ballots

Iraqis hear that America will bestow democracy, as it did in Japan and Germany after the second world war. But some argue, mournfully, that diplomatic pressure would have been enough to bring about such reforms. Why, asks the professor, does the West send weapons inspectors, when what Iraq needed was human-rights monitors and election observers?

In 1991, American bombs shut down Iraqi power plants in the depths of winter. This time, the weather at least is warmer. Mr Abbas, the retired officer, says he hopes the power will be back on again “by the time we need air-conditioning”.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Palestinian politics

An alternative Mr Palestine

Mar 13th 2003 | JERUSALEM
From The Economist print edition

The Palestinians now have a prime minister. But what does this mean?

Reuters

Get article background

New leader, old grievance

"HE IS not an Israeli agent, or anything like that," said Amos Gilad, an Israeli general, of the Palestinians' first prime minister. Mahmoud Abbas, also known as Abu Mazen, "opposes terrorism out of Palestinian interests, not Israeli interests," he added. That he felt the need to point this out shows how much pressure the Palestinian Authority (PA) was under to appoint a new leader. The Israeli and American governments detest its current head, Yasser Arafat, and have said that the long-dead peace process cannot resume until his removal from power. They are reserving judgment as to whether Mr Abbas's appointment is a step in that direction; Hamas denounced it as a response to "American and Zionist pressures".

In his newly-created role, Mr Abbas will run the day-to-day affairs of government, with responsibility for security and public order in the areas of the West Bank which the PA nominally controls but which are now mostly occupied by the Israeli army. Mr Arafat's autocratic grip will be weakened, but not removed. He will remain the authority's president, with the power to fire Mr Abbas. And as chairman of the Palestine Liberation Organisation (PLO), he will continue to reign supreme on matters to do with negotiations with Israel, foreign policy and "national security". Mr Abbas will also be involved in negotiations with Israel, but as head of the PLO negotiation team, not as prime minister, and again answerable to his boss.

Palestinians hope that this division of labour will make the executive more accountable to their elected parliament. Israel and America are uninterested in new Palestinian elections; they want to see what actual powers the prime minister will have, particularly vis-à-vis the Palestinian militias that now rule in many of the disconnected Palestinian towns, villages and refugee camps. So does Mr Abbas; he has yet to accept the nomination.

A founder of Mr Arafat's Fatah movement, Mr Abbas has devoted his life to the Palestinian struggle, which gives him popular appeal. He is considered a moderate: as one of the main architects of the Oslo accords, he has long averred that Palestinians can only win independence by negotiation. In recent months he has become a vocal critic of the *intifada*, insisting that its "militarisation", and particularly the suicide bombings, have tarnished the Palestinian cause and given Israel a pretext for oppression.

That said, Mr Abbas makes much the same demands as Mr Arafat does: a Palestinian state spanning all the territories Israel occupied in 1967, including East Jerusalem, and a "just" resolution for Palestinian refugees. Whether he will have any more success in realising these aims remains to be seen.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Hizbullah's new video game

Jihad in cyberspace

Mar 13th 2003 | BEIRUT
From The Economist print edition

This time, Arabs are not the bad guys

YOUR correspondent achieved martyrdom this week. Several times, in fact. He also blew away Ariel Sharon and half the Israeli high command. Readers may be reassured to know that the bullets were virtual ones, fired with a mouse-click while investigating “Special Force”, a computer game devised by Hizbullah, a Shia militia which the Americans deem a terrorist organisation.

Hizbullah is best known for the suicide bombing that killed more than 240 American marines in Lebanon in 1983, and for evicting Israel from its self-declared “security zone” in southern Lebanon in 2000. As well as a private army, it has representatives in the Lebanese parliament and runs schools, clinics and orphanages. Games software is a new venture. Bilal Zein, who helped to develop “Special Force”, argues that there was a gap in the market. Popular American click-and-kill games, such as “Delta Force”, tend to depict Arabs as faceless baddies. Many Arabs, understandably, see things differently.

Otherwise, “Special Force” is a combat game much like any other. Well, almost. Mr Zein is not blind to the game's potential as a public-relations tool. It also allows a form of participation for the “thousands” of volunteers that the group says it has to turn away.

“Special Force” is designed as an introduction to Hizbullah tactics. Stage one takes players to a boot camp where the faces of Israeli leaders grace the target ranges. Success brings a certificate presented by the Hizbullah leader himself, Hassan Nasrallah. Stages two and three replicate actual Hizbullah operations. The game concludes with a gallery of fallen Hizbullah heroes. According to Mr Zein, more than 7,000 copies have been sold since its launch in February.

In the real world, an imperfect truce holds between Israel and Hizbullah, who face each other across the Israeli-Lebanese border, which the official Lebanese army declines to guard. Many Israelis and Lebanese fear that in the event of a war in Iraq, this border could turn suddenly violent. A real war might not be so much fun.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Iran and Russia

Whom to hug, if not the bear?

Mar 13th 2003 | BUSHEHR
From The Economist print edition

America comes between old allies

FAR from home, the Russian technicians look glum. They work at Bushehr, a nearly-finished nuclear reactor on the shores of the Persian Gulf, defended on all sides by anti-aircraft guns. Russia is the only country willing to help Iran pursue its nuclear dreams. Others ask why a country with so much oil needs nuclear power.

Russia's foreign minister, Igor Ivanov, visited Iran this week. He and his Iranian counterpart said they opposed American belligerence towards Iraq, and defended their co-operation on Iran's nuclear programme. But the alliance between Russia and Iran is not as carefree as it was. In 2001, Iran's president, Muhammad Khatami, was fêted in Moscow. Since then, American pressure (aided by Iran's abrasive bargaining style), has stopped Iran receiving the $2 billion-odd worth of sophisticated weaponry it was then trying to buy. Now, the alliance is under more strain.

Last week, Colin Powell, America's secretary of state, alleged that despite having signed the Nuclear Non-Proliferation Treaty, Iran had a “robust nuclear-weapons development programme”. On March 11th, the Iranian government invited journalists to visit Bushehr and see that nothing untoward was happening there. But the sites of new concern to western intelligence agencies are Natanz, visited for the first time a fortnight ago by inspectors from the International Atomic Energy Agency (IAEA), and Arak.

In the past, Russia has allayed western fears by belittling Iran's nuclear expertise, and drawing attention to an agreement whereby Russia would take back used fuel from the reactor at Bushehr. But Iran has taken steps towards producing its own reactor fuel. Mohamed ElBaradei, the IAEA's head, noted the “sophistication” of the uranium-enrichment plant at Natanz.

Having clashed with America over Iraq, Vladimir Putin, Russia's president, may not relish a quarrel over Iran as well. He would doubtless be relieved if Iran accepted more intrusive IAEA inspections of its nuclear facilities. But Asadullah Saburi, Iran's second-highest nuclear official, says this is unlikely until the world drops what he regards as an unjust “embargo”.

Iran's isolation, which has grown more acute since George Bush included it in his “axis of evil”, forces it to rely on Russia for many things. Spare parts for its Boeing airliners are hard to come by, so Iran has turned to inferior Russian craft. The Iranians blame Russian inefficiency for repeated delays in finishing the Bushehr reactor. Russia replies that Iran has been slow to pay its bills. Mr Saburi hints that the Russians, who hoped to win a contract to complete a second (half-built) reactor on the same site, may be disappointed. But if the Russians do not build the five extra reactors Iran says it eventually wants, it is hard to imagine who will.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Africa and America

Feeling America's fly-whisk

Mar 13th 2003 | JOHANNESBURG, LAGOS AND NAIROBI
From The Economist print edition

How the march to war affects Africa

“SEE that man?” said an excited Somali militiaman, pointing at a yawning, middle-ranking American diplomat. “He has the power to crush Somalia with one hand.” The scene was a hotel in Kenya, where Somalia's interminable peace talks drag on. Many of the warlords are there largely because they are terrified that America will invade their country if they do not at least pretend to be seeking an end to their decade-old civil war. An absurd delusion, perhaps, but a surprisingly common one. As America prepares to swat Saddam Hussein, the breeze from its fly-whisk is blowing Africans in all sorts of unexpected directions.

Most obviously, the three African members of the UN Security Council have had to spend recent weeks agonising over how to vote. The Angolan government, a nasty, oil-rich regime that the Americans tried to topple during the cold war, is not wildly enthusiastic about their current plan to topple a nasty, oil-rich regime in Iraq. Cameroon's government is less nasty, and has less oil, but is more dependent on France. Guinea has no moral qualms about the use of force to overthrow dictators, at least judging by the way it backs rebels trying to overthrow Charles Taylor, the despot in neighbouring Liberia.

Africans in countries that America suspects of abetting terrorists are more worried. Sudan, which used to harbour Osama bin Laden, was trying to mend relations with America even before September 11th 2001. After the twin towers crumpled, the country's Islamist government handed over terrorist suspects and (though it denies it) offered America the use of some air bases. It also made extra efforts to be seen to be negotiating a peace deal with rebels from the country's mainly pagan and Christian south.

Somalia has also felt America's hot breath, though to little effect. Because it fits the stereotype of a terrorist haven—a failed state with a Muslim population—America looked for al-Qaeda there. Local warlords assured them that the country's transitional government was riddled with bin Ladenites, not necessarily because it was, but because they wanted the Americans to bomb it. When the Americans realised they were being gulled, they lost interest, although some Somalis, as mentioned, have been slow to catch on.

The most strident criticism of America's new assertiveness has come from South Africa. The president, Thabo Mbeki, speaks more passionately about the need to stop war in Iraq than about issues over which he has actual influence, such as AIDS and Zimbabwe. Last month, he sent a team to Baghdad to share South Africa's expertise in disposing of weapons of mass destruction. (The apartheid regime had nuclear arms, but got rid of them.) Kgalema Motlanthe, the ruling party's secretary-general, predicted that because South Africa has minerals, “if we don't stop this unilateral action against Iraq today, tomorrow [America] will come after us.”

More plausible is Mr Mbeki's warning that war in Iraq could damage African economies. He says that donor money is likely to be diverted from Africa to aid post-war Iraq, and that high oil prices may push oil-importers into debt. He has a point. If war or the fear of it causes a global slowdown, this would hurt African commodity exports. Shares in Johannesburg touched a 17-month low on March 11th. But African tourism is sizzling, at least in places that seem far from Iraq: arrivals in South Africa rose 20% last year. African oil-exporters too should be in clover.

But they are not, on the whole, dealing wisely with the windfall. Oil prices may be high now, but after the war, when Iraq's huge oil fields come on stream again, they will probably subside. Countries that depend heavily on oil—and most African oil producers sell little else—should be carefully saving their earnings to see them through the lean times to come, or at least finding ways to hedge against future price volatility. But most are not.

History, alas, is repeating itself. After the oil shocks in the 1970s, African oil producers blew the windfall, borrowed against future oil revenues, and blew that money too. Nigeria's external debt is now 25 times larger than in 1973, but Nigerians are no richer. During the last Gulf war, a high oil price failed to yield significantly higher government revenues, as much of the extra cash was apparently stolen.

This year, higher oil prices have led to fuel shortages in Nigeria. By government decree, petrol is sold at a fixed, below-market price. When the world price rises, so do the profits from smuggling fuel out of the country. The dilapidated state oil refinery cannot keep pace, so the pumps in Lagos have run dry, and motorists have to queue for hours to refuel. The information minister, Jerry Gana, blames “saboteurs” who want to discredit the government in the run-up to elections in April.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Serbia's prime minister assassinated

The tremors of Balkan history

Mar 13th 2003
From The Economist print edition

The murder of Zoran Djindjic has jangled nerves but should not shatter the country's or the region's edgy peace

Get article background

POLITICAL murders in the Balkans have had a habit of breaking up countries and starting wars—witness, most infamously, the assassination of the Austrian archduke, Franz Ferdinand, in Sarajevo in 1914, which triggered the first world war. So Serbia's fragile democracy, re-established only three years ago after the fall of a tyrant, Slobodan Milosevic, has been shaken to the core by the assassination of the country's abrasively reform-minded prime minister, Zoran Djindjic, gunned down outside the main government building in Belgrade, the capital, on March 12th. But—fingers crossed—Serbia's institutions, still being rebuilt after the Milosevic tyranny, should be solid enough to withstand the shock, though it is far from clear who will fill the power vacuum.

In any event, a bout of infighting is likely to ensue. A state of emergency, allowing some civil rights to be curbed and the army to take over some police functions, has been declared. A deputy prime minister, Nebojsa Covic, may act as a caretaker. But pressure may grow fast for an early general election, which could, judging by opinion polls, bring to power Vojislav Kostunica, Mr Djindjic's rival and former president of Yugoslavia in the wake of Mr Milosevic's fall.

If that were to happen, the pace of economic reform would be likely to slow. Compared with Mr Djindjic, Mr Kostunica is less dynamic and radical, more conservative in economic and social affairs, and more nationalistic in the context of the Balkans' steamy ethnic and regional politics. But he is cautious by nature.

Mr Djindjic, a youthful 50, had chalked up several big achievements. After playing a key part in Mr Milosevic's demise, he then, having become prime minister of Serbia in 2001, had the nerve to send the former strongman to the UN's war-crimes tribunal at The Hague, where he is now on trial for genocide. That, crucially, opened the way for foreign aid to come back in.

His second and more recent big feat was to cut a constitutional deal to end the awkward dual structure of what was left of federal Yugoslavia: last month its two remaining parts became almost independent, to be only loosely linked under the cumbersome name of “Serbia and Montenegro”. An overarching Yugoslav presidency, in the person of Mr Kostunica, with lines of power that often tangled with those of the two component bits, was abolished. And, though patently unpopular among Serbs at large, thanks mainly to their continuing dismal standard of living, Mr Djindjic had been craftily consolidating power, seeking to bring, for instance, the army under his control.

While putting himself squarely in the pro-western camp on most foreign issues, on Kosovo Mr Djindjic was ambiguous. Recently he had sounded a more nationalist note, publicly stressing that the breakaway province was still a constitutional part of Serbia. In private, however, he was more pragmatic, accepting that Kosovo was unlikely in the foreseeable future to be controlled by Serbs again. Mr Djindjic was indeed a pastmaster at sounding nastily nationalist or cosily cosmopolitan—whichever met the political need of the moment. Mr Kostunica, if he came to power, could make things stickier.

As a conciliator of Serbs, however, Mr Djindjic had recently been failing. He had expended much energy on keeping Mr Kostunica, Serbia's most popular politician, out of power. Since last November Mr Kostunica had sought to win Serbia's presidency but, though winning most votes at the ballot box, had failed to win the job because the turnout had been too low. Mr Djindjic had been determined to keep him on the sidelines.

Mr Djindjic certainly made enough enemies in his time. He had repeatedly clashed—with Mr Kostunica, among others—over reforms of the police and security services. Most pointedly, Serb nationalists were enraged by his decision to send Mr Milosevic to The Hague. And more recently he may have been close to having the Bosnian Serb general, Ratko Mladic, nabbed with the intention of dispatching him to the UN's war-crimes tribunal too.

Mr Djindjic had also been inveighing against organised crime, a major brake on the Serbian economy, but his detractors invariably accused him of being too close to criminals himself. Government spokesmen have already blamed a criminal outfit, known as the Zemun gang (after a Belgrade district), for Mr Djindjic's murder.

He lived dangerously in every sense. His methods were rough. But he made a fair start in rescuing Serbia after Mr Milosevic. If the country can react peacefully to his murder, that may be his best legacy.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

The International Criminal Court

Soon it will be dispensing justice

Mar 13th 2003
From The Economist print edition

The new court's work has begun—without the Americans

Get article background

IT ALL sounds depressingly familiar. The United States stood toe-to-toe against other countries, led by France, in the UN's Security Council. Weeks of negotiation seemed to make matters worse. The explicit threat of a veto hung in the air. Time was running out. However, the issue in last July's high-stakes stand-off at the UN was not Iraq, but the role of the new International Criminal Court (ICC). And the conflict in the council last summer had a happier outcome than now looks likely for the current quarrel over Iraq—a compromise resolution was passed unanimously, and everyone walked away relieved.

Despite continued and fierce American opposition, the ICC was launched formally this week in The Hague, where it will be based, with a grand ceremony to mark the swearing-in of its first 18 judges. Most other staff have yet to be hired, and the court will probably not take up its first case until next year. Backed by all EU countries, and by dozens of others around the world, it has been set up to handle genocide and the worst cases of war crimes or mass atrocities against civilians when no national court is able or willing to do so.

Unlike the UN's International Criminal Tribunal for the former Yugoslavia, where Slobodan Milosevic is being tried, the ICC is meant to be permanent. Unlike the International Court of Justice, also in The Hague, the ICC is designed to deal with crimes by individuals, not disputes between states. So, for example, whatever the outcome of the current dispute within the UN Security Council, the ICC will not be able to rule on the legality of any forthcoming invasion of Iraq.

Can the court succeed in the face of so much hostility from the world's superpower? Last July's compromise in the Security Council, giving Americans involved in UN peacekeeping missions immunity from the court's jurisdiction, expires in July. Another row is possible. A refusal to renew the resolution could well provoke the United States to repeat its threat to veto all UN peacekeeping mandates.

America has campaigned against the court for fear that it will be used to mount politically motivated prosecutions of American government officials. The court's supporters insist that there are enough checks and balances in the 1998 treaty setting up the court to ensure that it operates responsibly. Under Bill Clinton, the American government was concerned about the potential for the court to constrain America's freedom of action abroad, so his administration played a central role in shaping the court's treaty. Just before leaving the White House, Mr Clinton signed the treaty, to keep America involved. But last year George Bush revoked America's signature, then vigorously sought to win absolute legal immunity for Americans from the court's jurisdiction.

The United States has not been alone in opposing the court. The world's most brutal dictatorships, of course, have shunned it. But two democracies, India and Israel, have shared America's misgivings. China and Japan have spoken in support of the court but have not yet signed the treaty. Russia has signed but not ratified it.

Still, America's campaign against the court has had mixed results. It has not slowed the pace of new ratifications. Since last summer's Security Council quarrel, 13 more countries have ratified the treaty, bringing the total of those accepting the court's jurisdiction to 89. Many of these countries are close friends, or even clients, of the United States, such as Colombia, Bolivia and South Korea. Last month even Afghanistan ratified the treaty.

Powers of persuasion

The United States has persuaded 24 countries to agree not to surrender to the court any wanted Americans from within their borders, offering the same in return. It is pushing many other countries to sign similar deals, hoping that a web of such bilateral agreements, which it claims are sanctioned by an obscure provision of the treaty called Article 98, will in effect give Americans global immunity from the court's jurisdiction. The EU tried to ban any such deals between America and EU members, or indeed countries hoping to join the EU. But under strong American pressure, this common front collapsed.

Yet even America's campaign against Article 98 has not gone smoothly. Many of the countries that have signed such agreements so far have not, in fact, joined the court and so would not be required to surrender suspects to it in any case. No EU country has yet signed such an agreement. The one would-be member to do so, Romania, has not yet submitted the agreement to its parliament to be put into effect.

Some 200 suggestions for prosecutions have already been sent to the court

The next big step is for the countries setting up the court to choose a prosecutor, probably their most delicate appointment The court's cases will, almost by definition, be complicated and politically sensitive. Once the court's remaining key people are appointed and teams of investigators, administrators and lawyers hired, every decision to prosecute (or not to prosecute) is likely to be contentious. Some 200 suggestions for prosecutions have already been sent to the court. Early candidates are thought to be rebel commanders in Congo and Côte d'Ivoire. The International Bar Association, an umbrella organisation of lawyers' groups, has called for the prosecution of Robert Mugabe, Zimbabwe's president.

The small team of bureaucrats who have already spent months preparing for the court's launch want to apply lessons learned from a decade of experience at the Yugoslav and Rwandan tribunals, which have been criticised for their trials' length and cost. The ICC's proceedings, they hope, will be more efficient and will focus on the leaders guilty of the world's worst atrocities rather than on the small fry.

These are grand ambitions. But the court itself can do little to fulfil them without the active support of national governments, which will have to provide it with evidence, enforce its rulings and, most critically of all, deliver suspects to its courtroom. Dozens of countries have said they are willing to do these things, but that pledge was easy to make when the court was just an idea—and when no senior political or military leader was in its sights. But the day is fast approaching when the court's backers will have to prove that their support is real—not just a pious pledge.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

France's diplomacy

Against America? Moi?

Mar 13th 2003 | PARIS
From The Economist print edition

Not all President Jacques Chirac's friends share his confidence

AP

Unflagging de Villepin

Get article background

“WHATEVER the circumstances,” says its president, “France will vote no.” In other words, America, Britain and Spain—all of them France's allies in NATO—will not get their UN Security Council resolution leading, in the French view, automatically to war with Saddam Hussein's Iraq. “War is always the worst solution,” goes the French president's refrain, with additional arguments that the UN inspections are working and that Iraq's weapons of mass destruction (“of which there are certainly still some”) do not pose an immediate threat to world peace.

So does Jacques Chirac see himself as a new Charles de Gaulle, setting France's policy against America's, almost regardless of the risks, both political and economic? Announcing France's intentions on March 10th, President Chirac deftly deflected his television interviewers. De Gaulle, he said, had never opposed America for the sake of opposing it, but only to protect France's interests. Still, he added, “I can't help but be flattered by the comparison you're trying to make.”

Indeed. Not so long ago Mr Chirac was being written off as a conviction-free opportunist, dogged by scandal and fatally weakened after the voters in 1997 condemned him to “cohabit” for five years with a coalition government led by his Socialist opponents. Now, since his own re-election last year and the ensuing rout of the left in a general election, he is riding high. In France his supporters control all organs of the state; in the European Union he has renewed France's alliance with Germany, to the discomfort of Britain and others; and on a still broader stage he has, it seems, persuaded Russia and China to share France's opposition to the tactics of the Bush administration.

But is he also riding for a fall? In immediate terms, obviously not. In France his policy on Iraq, crafted in conjunction with Dominique de Villepin, the hyperactive foreign minister who is almost a son to the president, is extremely popular. In a poll taken just before his television interview, 64% of the sample thought France should take no part in any war not approved by a UN resolution—and 69% thought France should veto any such resolution. In the same poll, 82% had a “bad image” of President Bush and 81% blamed America for the worsening of its relations with France.

Where the public leads, the politicians follow. Mr Chirac is being praised even by his political opponents.

The Socialists' leader, François Hollande, “shares his views” on Iraq and the UN; so does the Communists' national secretary, Marie-George Buffet; so, too, Jean-Marie Le Pen of the extreme-right National Front. Bernard Kouchner, a former Socialist minister and the founder of the Médecins Sans Frontières organisation, is a rarity: he says a war to remove Saddam Hussein would be justified on moral grounds. Meanwhile, elsewhere in Europe, Mr Chirac's policy conforms with the opinion of the public if not always of their political leaders; in Tony Blair's Britain, for example, the French embassy reports getting letters by the sackload in Mr Chirac's support.

The question, however, is for the longer term. The French left is by instinct anti-American. So, too, is much of the French right; after all, its roots are Gaullist and so nationalist. But there are nonetheless plenty of French Atlanticists to point out the risks that present French policy poses for France, the European Union, NATO and, indeed, for the UN.

One of them is Pierre Lellouche, an MP who advised Mr Chirac when he was mayor of Paris. Last month, after Mr Lellouche and several other Atlanticists met Mr de Villepin to press their case for a less confrontational stance with America, he quoted the foreign minister as acknowledging that a French veto “would be firing a bullet in the back of the Americans”, implying that France would try to avoid casting its veto by ensuring either that there was no Security Council resolution to vote on or, if there were, that it would fail to get the necessary majority of nine out of 15.

Did Mr de Villepin really say that? The foreign ministry formally denies it. So do Mr Lellouche's companions at the meeting. There are malicious whispers that Mr Lellouche, a Tunisia-born Jew who is vice-president of the parliamentary friends-of-Israel group, is too close to Israel's prime minister, Ariel Sharon. Mr Lellouche, noting his colleagues' denials, comments that as a keen game-shot he perhaps has “a major hearing problem”.

Yet, whatever its provenance, his metaphor is worryingly valid. François Goulard, a member, like Mr Lellouche, of the Union for a Popular Movement majority in parliament, says that around 25% of its parliamentarians are against a veto. One, Jérôme Rivière, has now written—in English—to his American counterparts to express his sadness over the current tensions and his wish “to ensure that the friendship between our nations prevails”.

It may in the end. But meanwhile French businessmen and economists are beginning to worry about a potential backlash: lost contracts (they say that only American firms are so far being sounded out for the reconstruction of post-war Iraq); fewer American tourists and less American investment.

Yet Mr Chirac, constantly professing his liking for America and Americans (and announcing a willingness to let their aircraft use French airspace en route to Iraq) does not seem to worry. In his television interview he brushed aside the idea of American retaliation: “I know the Americans too well to imagine they would use that kind of method.” So too the idea that the EU is being weakened: “I know Europe well. I'm perhaps one of those who knows best how it works. Once this crisis is over, it won't be divided at all. Europe's history is marked by a series of crises, from which, each time, it has emerged stronger.” The French must hope, in Mr Chirac's quest for “a multipolar world in which Europe counts and exists”, that he is right.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Turkey's new prime minister

Trouble, trouble, trouble

Mar 13th 2003 | ANKARA
From The Economist print edition

Tayyip Erdogan has got the job he deserves—and problems galore

Reuters

Turks say yes to Erdogan, no to war

Get article background

TAYYIP ERDOGAN was at last poised this week to take over the formal running of government. But just as parliament appeared ready to give his administration a new vote of confidence, Turkey was in danger of falling ever deeper into an economic and diplomatic quagmire.

Though he was the undisputed leader of the Justice and Development Party (AK), he had been excluded from its electoral triumph last November—and from standing for parliament—by a constitutional ban, as he had once been convicted of reciting an allegedly Islamist poem at a political meeting. And though AK had won an outright majority of the parliamentary seats, he could not, since he did not hold one of them, become prime minister.

Into the job he put a loyal stand-in, Abdullah Gul. Mr Erdogan's followers voted to amend the constitution, repeated the vote when President Ahmet Necdet Sezer vetoed the change, and won their point. On March 9th in the south-eastern province of Siirt, his wife's home area, he was elected with a resounding 85% of the vote.

Mr Erdogan will have no respite. The big issue facing Turkey is Iraq, and the fall-out, geopolitical and economic, from the Turkish parliament's disagreement with the United States about it. On March 1st, some 100 AK members voted with the opposition against a bill, put forward by Mr Gul and firmly endorsed by Mr Erdogan, to allow the deployment in Turkey of 62,000 American combat troops ready to move into northern Iraq. The parliament had already accepted a much smaller deployment of technicians to upgrade Turkish ports and air bases. But, reflecting public opinion massively opposed to any war, many MPs, including many of Mr Erdogan's disciples, balked at this logical next step: the bill got a small majority but not enough—half of those in the chamber, including abstainers—to make it law.

The Americans, already tired of waiting and fed up with the haggling over the huge price Turkey demanded as compensation for the costs of a war, were appalled. This week Mr Erdogan had a telephone call from George Bush urging him to resubmit the bill to parliament. Mr Erdogan was in a cleft stick: should he defy many of his MPs and still more of the electorate, or enrage Turkey's main ally and essential economic backer?

More followed. The inter-communal talks sponsored by the UN with the aim of reuniting the Greek-Cypriot and Turkish-Cypriot parts of that island collapsed. Mr Erdogan late last year went some way—far further than any previous Turkish government—to arm-twist the Turkish-Cypriot leader, Rauf Denktash. But not enough. The Turkish government again failed to make Mr Denktash budge.

The European Union is cross. Its spokesman said that the Greek bit of Cyprus would be admitted as a full member on its own—and that Turkey, with tens of thousands of its troops in Mr Denktash's self-styled republic, would be seen as occupying a piece of EU territory. The message was clear. Turkey, a would-be EU member for some 40 years, risks seeing its own dreams, which have been encouraged by Mr Erdogan, put aside for years more.

Enter the World Bank: the new budget the Turkish government unveiled last week unfairly taxed the poor, it said, and the Bank probably would not release a $1.4 billion tranche of a loan for development projects. Only a day earlier, the IMF had praised the government's austerity measures, saying it would hand out a promised $1.6 billion. A further blow came on March 12th: the European Court of Human Rights ruled that Turkey's trial of Abdullah Ocalan, the separatist Kurdish guerrilla chief, had been unfair, and that he should be retried. Blackmail, cried Bulent Arinc, the AK speaker of parliament.

And the American troops? Despite open support for their deployment from Turkey's army chief, General Hilmi Ozkok, public opposition to it—and to any Turkish involvement in a war against Iraq—has been growing. Television images of troops and equipment being unloaded at Iskenderun, on the Mediterranean, and heading for the south-east, where the Americans have been converting a flour factory into a logistics base, have not helped.

The government at first said the Americans were merely upgrading, as parliament had said they could. No way, said the opposition Republican People's Party: these were combat forces and they were moving weapons and tanks into Turkey. “Illegal occupation”, it shouted. The army said it would launch its own investigation. Mr Erdogan is now said to favour a new bill to let the Americans use Turkish airspace to fly their troops directly into northern Iraq. But would that satisfy them?

It better had. Turkey has huge debts—and the Americans are not minded to fork out the “compensation” they earlier agreed to except for a proper return. And they could be much tougher still. But it would dissatisfy many of Mr Erdogan's supporters. “I hope he does not make up his mind on economic considerations alone,” said one such MP. “Turkey's sovereignty and security are at stake.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

A murder in Bulgaria

The richer they are...

Mar 13th 2003 | SOFIA
From The Economist print edition

...the harder they fall. And bodyguards are not enough to prevent it

AS BIG fish in Bulgaria go, you couldn't get a much bigger one than Ilya Pavlov, murdered in Sofia on March 7th. A former champion wrestler who had used old-regime connections, mainly in the intelligence and security worlds, to amass huge post-communist wealth, he was widely thought to be Bulgaria's richest man. His MG Corporation (formerly Multigroup) had moved from art dealing into energy, mining, metals, textiles, food-processing, finance and tourism. Lately it had also acquired some trappings of respectability: modern management, well-publicised philanthropy, an American passport for Mr Pavlov—and first-rate libel lawyers.

Just why the well-guarded tycoon was killed no one knows. A spat over the Miss Bulgaria contest? A struggle among energy interests? Fall-out from a continuing trial for the murder in 1996 of a former prime minister, Andrei Lukanov?

Crime was one of many problems the prime minister (and former king), Simeon Saxe-Coburg, was to tackle after winning the general election of 2001. He has tried. A close associate, Boiko Borisov, has proved an energetic chief secretary at the interior ministry. A British consultancy is overhauling the customs service, which has been much tied up with crime.

Yet Mr Pavlov's corpse is not alone. There have recently been several high-profile business killings and shoot-outs. A senior prosecution official was murdered after Christmas. Mr Borisov has complained that the chief prosecutor, Nikola Filchev, has not effectively followed up police successes. The judiciary has been widely criticised—not least by the European Commission—as corrupt, ineffective and politically packed.

Judicial reform is generally admitted to be necessary—in particular, removal of judges' and prosecutors' immunity. But will it happen? Life is getting awkward for Mr Saxe-Coburg. The courts have held up some of the quick privatisations he promised. Keen support for the Americans over Iraq has offended many in the European Union and worried most Bulgarians. The (ex-communist) Socialists are riding high in the polls because the government, predictably, has not fulfilled its welfare promises, while their friend President Georgi Purvanov is more assertive—and popular. And meanwhile, His ex-Majesty's own MPs are growing increasingly stroppy.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD EUROPE
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Charlemagne

Still sclerotic, after all these years

Mar 13th 2003
From The Economist print edition

Why is Europe growing so slowly?

CONCENTRATING on the finer points of economic deregulation in Europe is a challenge at the best of times. It will be particularly tricky for Europe's leaders when they gather in Brussels for a European Union summit on March 20th. In theory the meeting will be dedicated to economic reform. But there may be a few distractions—like the fact that the EU is split down the middle over Iraq, the UN is in disarray and, by the time the leaders meet up, bombs may be whistling down on Baghdad.

Manfully ignoring the muffled explosions offstage, EU leaders will still make an effort to concentrate on the “Lisbon agenda” of economic reform. Launched in 2000, it was a response to the growing evidence that European economies were falling behind America's. Over the past 20 years the EU has averaged growth of just over 2.3% a year, while the United States has managed 3.3%. At Lisbon the assembled leaders promised to turn the EU into the world's most competitive economy by 2010. Every year since then, EU leaders have met in March to review progress and issue platitudinous statements of the “much has been achieved, but much remains to be done” variety.

As it happens, quite a lot has indeed been done. Liberalisation of Europe's energy markets—the totemic issue at last year's spring summit—was agreed upon in November, albeit in a rather half-hearted way. There has been progress towards integrating financial markets and liberalising postal services. An EU-wide patent law—controversial, as it touches on sensitive matters of language and legal jurisdiction—will be agreed this time round.

And yet the results still seem disappointing. Despite the bursting of the dotcom bubble, September 11th and a rash of American corporate scandals, the EU is still growing markedly more slowly than America—and most forecasters predict that this will remain the case for at least the next couple of years. It is premature to declare the Lisbon agenda a failure, since most of its elements will take several years to kick in. But not too much comfort should be drawn from that. The Lisbon reforms are in essence simply consolidating and building upon the creation of an internal EU market—an effort to rip down barriers to trade and investment that was meant to have culminated in 1992 and was heralded as the dawn of a new golden age for Europe's economy. Since then the EU has grown at an average rate of just over 2% a year. A recent European Commission study concluded that the internal-market programme had added around 1.4% to the EU's GDP over the past decade—a welcome increase in wealth, doubtless, but hardly a radical transformation.

Since the original internal market programme delivered such relatively modest results, there is no particular reason to suppose that the Lisbon agenda will be any more effective. The blunt truth is that even if the EU fulfilled the Lisbon agenda down to the last comma, it would still not become the world's most competitive economy by 2010.

So what ails the European Union? There are comforting and not-so-comforting explanations. The comforting theory, which has some merit, is that Europe's slower growth reflects cultural preferences. Superior American growth in large part reflects the fact that America's population has been increasing faster and that Americans work longer hours than Europeans. European workers produce about as much per hour as the American average; it is just that they spend less time at work. If Europeans prefer time on the ski-slopes to extra pay, that seems fair enough. A similar argument can be made about welfare. It is a commonplace that generous welfare is a brake on European economic growth, leading to higher taxes and fewer jobs. But any politician who tries to reform the welfare state swiftly runs into trouble for a simple reason: it is very popular. Once again, argue the EU's defenders, Europeans are simply making a legitimate choice: for slower growth, perhaps, but in return for greater security and less poverty.

Unfortunately the idea that slower growth and a powerful welfare state are simply the result of a benign European consensus is too rosy. Many of the benefits of state welfare flow not to society as a whole but to entrenched interest groups—in particular to trade unions and recipients of tax-funded benefits. It is hard to see how the 11.3% of the German workforce who are out of work, measured by the latest unadjusted figures, benefit from trade-union opposition to the idea of more flexible working patterns and less rigid job protection. Moreover, as Adair Turner of Merrill Lynch pointed out in a lecture last month, not all of Europe's social choices are economically sustainable. In particular, “the current combination of birth rates, retirement ages and pension promises” threatens to boost taxes to unsustainable levels or to leave the elderly in poverty (see article). But in countries like Italy, France and Greece, trade-union opposition to pension reform is so fervent that it can hamstring governments and even, on occasions, bring them down.

Stuck with an out-of-date model

Even politicians pressing for pensions and economic reform in Europe take care to acknowledge a presumed need to preserve a “European social model” as the basis for the prosperity and social peace of the last 50 years. What they miss, however, is that this famed model has changed over the years, as the welfare state has grown ever more complex and the stress on security over growth ever more suffocating. The great designer of Germany's post-war “social-market economy” was Ludwig Erhard, a Christian Democrat. Yet even he argued that the state should never aspire to “grant a man complete security from the hour of birth” and that “the welfare state must finally spell poverty for all”. It is a measure of how much Europe has changed that statements like that—perfectly compatible with the idea of a social-market economy in the German boom of the 1950s—would now be viewed as impossibly controversial.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Countdown to war

Fighting on the beaches

Mar 13th 2003
From The Economist print edition

Getty

Tony Blair has had an awful week, his worst since gaining power

Get article background

SUDDENLY, Tony Blair doesn't look young any more. His features are pinched and drawn, his complexion sallow. Even his hairline seems to have receded a little further. A persistent fluey cold can't help, but strain and fatigue exude from each pore. Although he insists that every waking hour is spent fighting to get a second (or 18th, depending on your point of view) United Nations resolution authorising military action against Iraq, the onset of hostilities may come as a relief. The war may be hell, but at least it will end this purgatory.

The worst week so far of Mr Blair's tenure in office began late on Sunday evening when Clare Short, the cabinet minister responsible for dispensing Britain's rather generous overseas aid budget, said on a radio programme that if Britain joined America in attacking Iraq without a second resolution, she would quit the government. On its own, that would have been bad enough, but not wholly surprising. Mr Blair has licensed her outspokenness in the past—only recently she described his policy on university fees as “a very bad idea”—and might have been able to turn a blind eye again had she left it there. “Clare is Clare,” as Downing Street used to say. But once Ms Short got going there was no stopping her: “The whole atmosphere of the current situation is deeply reckless, reckless for the world, reckless for the undermining of the UN...reckless with our government, reckless with his own future, position and place in history.”

Despite one of the most flagrant breaches of cabinet collective responsibility in recent memory, Ms Short neither resigned nor was sacked. While loyalist ministers queued up to express poorly feigned surprise at Ms Short's “timing” and “self-indulgence”, Downing Street insisted that the prime minister was too busy telephoning “world leaders” about that second resolution to deal with Ms Short just yet. But few doubted that the real reason was that with backbench MPs becoming daily more rebellious, the whips had advised that instead of making a martyr out of Ms Short, Mr Blair would do better to leave her “to swing in the wind”.

Ms Short's intervention set in motion a train of newspaper stories about moves to topple Mr Blair. Left-wingers who have always detested him began talking excitedly about getting together the 83 MPs (20% of the parliamentary party) needed to trigger a vote at the party conference in October on whether to

hold a leadership election. There are circumstances in which Mr Blair's position could become untenable (see article), but nobody sensible thinks a formal challenge is remotely likely. The Labour Party, unlike the fratricidal Tories, hardly ever gets rid of its leaders. George Lansbury, who got the push in 1935, is the only one ever to have been truly forced out—ironically, for resisting calls to arm against Hitler.

Far more worrying for Mr Blair was President Jacques Chirac's pledge on French television to veto any new resolution tabled by the British and the Americans at the UN, no matter what the circumstances. As the week wore on, the government's mantra that it was “working flat out” to secure the second resolution began to sound increasingly frantic. More and more, Mr Blair looked like a man caught between growing American impatience with its ally's frenzied but fruitless diplomacy, and the determination of the French and Russians to shoot down any compromise proposed by the British.

The prime minister's isolation was driven home by his appearance on a television programme, “Tonight with Trevor McDonald”. The all-female audience had been hand-picked to devastating effect. It included one woman whose boyfriend had been killed by the Bali bomb, another who had lost an only son in the World Trade Centre and another whose husband is a human shield in Iraq. All were passionately anti-war. At the end, something unprecedented happened: as Mr Blair looked uneasily round the studio, the audience began a slow handclap. Downing Street didn't even bother to complain.

Just when it looked as if things couldn't get worse, late on the evening of March 11th, Donald Rumsfeld struck. The American defence secretary is not always the most subtle press conference performer. But his answer to a question about what America would do if the British decided that in the absence of a second resolution they would not join an attack on Iraq, was more than usually unhelpful. Oh well, said Mr Rumsfeld, naturally there were “work-arounds” if the British couldn't be there because of the vagaries of their parliamentary democracy.

Within seconds, prime ministerial aides hit the phones and were demanding that Mr Rumsfeld issue a “clarification”. Nothing had altered; if it came to war, the sturdy British were as ready as ever to do their bit. But it was exactly the ammunition the prime minister's domestic critics needed. Did it not show that all the talk of “influence” was bunk, for the Americans would go to war whatever we did? And if the Americans were already planning to do without British forces at the sharp end, why not gratefully take that as a way out?

A final British attempt mid-week to put forward a resolution that, by setting a series of tests for the Iraqis to meet, might get at least a majority of Security Council support seemed to owe more to desperation than to a strong expectation of success. With the Americans insisting on an early deadline, Tony Blair faces the prospect of going to war not only without the legal cover of explicit UN authorisation, but also in opposition to the views of a majority of his own MPs. His only consolation is that it should all be over soon. One way or another.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD BRITAIN
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Anti-Americanism

Over here

Mar 13th 2003
From The Economist print edition

British anti-Americanism is a muddle not a menace

FROM a glance at the letters and comment pages of British newspapers and magazines, or to hear callers spouting on radio phone-ins, let alone by dropping in at a London dinner party, it would be easy to conclude that the country was gripped by bigoted, visceral anti-Americanism, which believes that brutal, incompetent, ignorant Yankees stomp the world at the behest of an unelected clique, composed, with magical elasticity, of oil barons, Zionists, bible-bashing Christians and spooky neo-conservatives.

There is certainly more than just a whiff of this around. In a poll last month by YouGov, an internet pollster, only 25% of those asked identified Iraq as the greatest threat to world peace, while 32% named America. Several other polls show that the British population seems to think that President George Bush is a worse and more dangerous man than Saddam Hussein. Some three-quarters support an attack on Iraq with United Nations approval; less than a quarter would back America going ahead without it.

But the real picture is a lot more complicated. Polls carried out in late 2002 by MORI, an opinion research firm, show that the number of people warmly disposed to America is rising, not falling. Those saying they "like Americans as people" have risen from 66% in 1991 to 81%. Those agreeing that "we could learn a great deal from America" are up from 39% to 50% over the same period.

Such hostility as does exist is mainly focused on the Bush administration's stance on particular policies, such as the Arab-Israeli conflict or global warming. Nonetheless, it is worth noting that the British lack of enthusiasm for American policies largely mirrors that felt in America itself. On a scale of 1 (poor) to 4 (excellent), the British rate the administration at 1.8 on the Middle East. The Americans surveyed give it 2. There is exactly the same gap on Iraq. On international terrorism, the Brits give the administration a rating of 2.4, and the Americans 2.5.

A particular problem now is that American-style conservatism finds so little echo in British politics. Under both the Clinton and Reagan administrations, there was a deep intellectual sympathy between governing parties and elites on both sides of the Atlantic. However much Tony Blair and his colleagues want to help Mr Bush in some bits of foreign policy, they find little to talk about when it comes to health care, welfare or the environment. Even British Tories, intent on appearing a kinder, gentler party than before, find their Republican counterparts pretty strong medicine.

It is also a class issue. Poorer and less educated Britons like America a lot more than their richer compatriots. That reflects everything from tastes in food (Coca-Cola rather than Chianti) to holidays (Florida rather than Florence), and raises the suspicion that upper-class anti-Americanism may be surrogate snobbery. Age plays a role too. Middle-aged Britons tend to like America least; youthful and elderly ones like it most.

Beyond all that, though, people deeply involved in the Anglo-American relationship do feel that there has been a clear if subtle change for the worse. It is not so much that anti-Americanism is growing, but that pro-Americanism is weaker, says one. There are many reasons—one temporary problem is that the current American ambassador to London is gentlemanly and reclusive; he and his staff rarely engage their country's critics. But the underlying cause is the end of the cold war—the foundation of the special relationship for half a century. The obvious argument for being friends with America—defending western Europe—is gone. The new reasons are more complicated and less instantly appealing.

Personal links are certainly weaker. Although relations at the very top of government are extraordinarily close, other ties have been fraying noticeably in the past ten years. Many fewer members of Congress, for example, find the time to visit Britain, let alone continental European countries. There is no pressing

reason to do so; and American politicians have become increasingly sensitive to any charge of junketing with foreign hosts. It is safer in every sense to stay at home.

There is also more competition. For those looking for a ride on a gravy-train, Brussels is accessible in every sense, whereas Washington, DC, or New York seem further away and more foreign. The MORI poll shows a clear tilt in British minds towards the European Union (EU). Only 37% rate America as the most important foreign partner, compared with 56% for the EU.

But the pendulum may be swinging back. British middle-class parents are now looking with increasing interest at American universities, which they see as better, fairer and not much more expensive than the local option. Once that penny drops, perhaps they will realise some other advantages of transatlantic ties.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Asylum-seekers

The Albanian solution

Mar 13th 2003
From The Economist print edition

A controversial new idea for dealing with a growing problem

TONY BLAIR is so worried about asylum-seekers that he spent most of a Sunday in January combing through the asylum rules with officials, looking for new ideas. Last year, 110,000 new asylum-seekers arrived in Britain, 20% more than in 2001. The Treasury has just promised the Home Office an extra £785m ($1.3 billion) to help with the bill for processing and supporting would-be refugees. That is more than the entire budget last year of UNHCR, the United Nations High Commission for Refugees (see article).

Officials have come up with a radical new, twin-track, scheme. In the long term, the aim is to improve conditions in refugee camps, to try to look after more refugees near their countries of origin. But, by the end of this year, the government wants to set up transit processing centres (or TPCs) outside the European Union: secure centres to which asylum-seekers arriving in Britain, or claiming asylum after they arrive, would be sent and where their claims would be processed. Croatia, Romania and Albania are possible locations. The government has just started talking to some of these countries about the plan, but it is not clear whether they are up for it.

Under the schemes, refugees would no longer go through the expensive and lengthy appeal process in the British courts. Instead, a panel of officials would process claims. There might be a single layer of appeal, but it would be heard within the system, not in a British court.

As well as being cheaper, processing claims abroad should cut the numbers who end up in Britain. At present, most asylum-seekers whose claims are refused do not leave. And, by reducing the chances of staying in Britain, the scheme should discourage those who do not have a legitimate claim from coming in the first place. Australia is the model for the scheme. There, processing refugees on the inhospitable island of Nauru seems to have worked as an effective deterrent—whereas refugees were arriving in Australia by boat at the rate of 500-1,000 a month in the autumn of 2001, only a single person arrived this way in the first six months of 2002.

Britain would like the rest of the EU to adopt the plan. If other countries took part, not only would Britain (the biggest single recipient) hope to reduce the total of genuine claimants it took; the scheme would also avoid becoming a shortcut to Britain.

Tony Blair plans to raise the idea at next week's meeting of the EU Council of Ministers. UNHCR has hinted that, if a processing centre were inside the EU, not outside, it might help to run it, which would confer legitimacy. But it will be tough to make the schemes acceptable. What would happen to those whose claims fail? Officials wonder whether those who get turned down and cannot or will not go home might be sent to regional refugee camps.

Would the British courts agree to allow asylum-seekers to be sent to TPCs? It is unclear whether those who reach Britain and then claim asylum must legally be processed there. The courts would also have to be satisfied that the processing centres were safe and comfortable.

The trouble is, several EU countries do not share Britain's concern. The Dutch, Danes, Swedes, Norwegians and French may well play ball. But Germany has managed to cut numbers of asylum-seekers dramatically by shoving many back into neighbouring East European countries. Italy and Spain tend to deal with few asylum claims, accepting that many will stay as illegals instead.

Not surprisingly, Britain's proposals upset many people. Amnesty International, a human-rights group, is dismayed by the plan and by UNHCR's potential involvement in it. And, as the plan would probably need

new legislation, expect a huge fuss in Parliament.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Libel

Shuddup

Mar 13th 2003
From The Economist print edition

Foreign millionaires like British libel laws. Publishers don't

AP

Berezovsky, the lawyers' friend

A MEALY-MOUTHED correction, no apology and no damages. It is not the sort of victory that a British tycoon would expect if a famous magazine labelled him a mobster. But for Boris Berezovsky, one of Russia's best-known political figures, this week marks the end of nearly six years of legal wrangling in London courts with *Forbes*, an American business magazine. In 1996 it published a highly critical article about his business practices, calling him the “Godfather of the Kremlin”.

Forbes sells only a couple of thousand copies in Britain. But Mr Berezovsky decided to sue in England because of its libel laws. “In this country, if you say I am an elephant you have to prove it. In America I have to prove that I am not an elephant,” he says. Not quite how lawyers would put it, but Mr Berezovsky is broadly right. In English libel law, the plaintiff needs to prove only that something is defamatory. Then the publisher must usually prove that it is true, or at least fair comment.

Although the settlement stops short of a full retraction, and the article (plus correction) is still on the *Forbes* website, Mr Berezovsky, a former Kremlin insider who has now fallen out with the Russian authorities and lives in London, says he is delighted. Settling now was probably a wise move: lawyers say he would have been lucky to receive more than £50,000 ($80,000) in damages, given *Forbes*'s tiny circulation in Britain, and could have run up a million pounds in costs had the case gone to trial.

In celebration, Mr Berezovsky has published a series of large, punchy advertisements in the British press (including this magazine). That sets the stage for another battle, this time between a Monaco-based businessman with extensive Russian connections, Simon Reuben, and another American business magazine, *Fortune*. Mr Reuben, whose colourful career has been plagued by misunderstandings, tried a few years ago to set the record straight by inviting a veteran *Fortune* reporter, Richard Behar, to spend time observing the business. Unfortunately the resulting article, although a gripping read, was not complimentary. Mr Reuben is suing for libel. *Fortune*, as *Forbes* did earlier, is trying to argue that the case should not be heard in London.

Britain's libel laws have always attracted foreigners, but globalisation means that more people are getting rich in odd places and circumstances. That means more (and often critical) media coverage of foreigners. Hostile articles combined with zillionaires seeking respectability makes for happy lawyers.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Tourism

The absent Americans

Mar 13th 2003
From The Economist print edition

With foreigners disappearing, locals are helping bail out the tourism business

REMEMBER those newspaper pictures of army tanks outside Heathrow? Americans do. So do many Europeans and Asians. Britain's demonstration of how to make war not love just before Valentine's Day last month may not have frightened al-Qaeda. But it appears to have put the wind up a lot of the foreigners who used to enjoy coming to Britain for their holidays.

Tom Jenkins, boss of the European Tour Operators Association, says the image was “catastrophic—the biggest public relations disaster for tourism since Tony Blair donned his chemical suit during foot and mouth. Americans thought we were declaring martial law. The phones stopped ringing with that image and haven't started again.” The timing was particularly bad since February is the peak booking month for Americans—by far Britain's highest-spending foreign tourists—and for the Japanese, ahead of their peak travel times in late spring. According to Mr Jenkins, February bookings from the United States are down by 70-80% year-on-year. The Japanese, meanwhile, seem to be avoiding Europe in favour of China.

That is a heavy blow for Britain's £74 billion-a-year tourism business, which was just getting over its “annus horribilis” of 2001 (foot-and-mouth disease plus September 11th). Visitor numbers for December 2002 had jumped 36% compared with the year before and, for the third month in a row, were even a smidgen up on 2000, a record-breaking year for British tourism. The Golden Jubilee had drawn sightseers to London, says Tom Wright, head of the British Tourist Authority (BTA), while low-cost airlines, now linking 86 European cities to 16 regional airports in Britain, were bringing continental visitors on cheap mini-breaks. Even David Beckham was doing his bit, with Japanese fans pursuing him all the way to Manchester since the summer's World Cup.

The tanks, however, put paid to all that. While Mr Wright talks reassuringly of a mere “delay” in the recovery, an internal document, dated February 7th, shows the BTA is worried about Britain's role as America's belligerent ally and thus fears of terrorist attacks on Britain. “There are clear signs that consumers in some markets are not choosing Britain, and that Britain's long-standing reputation as a safe destination is now under threat due to the close association with USA,” the document says, singling out the Channel Tunnel as a possible target.

War is not the only thing about Britain that worries visitors. “Many view the threat of war in conjunction with a series of problems,” continues the document, naming London's recent tube-train crash, the inability to cope with bad weather (nothing new there, surely) and the strength of the pound (now fading). Business travel is down, but the biggest decline is in leisure travel. Stephen Dowd, head of the British Incoming Tour Operators Association agrees. “Tourists don't want to be far from home at the moment.”

That gloomy sentiment, however, points to a source of relief: the British holidaymaker. More than 80% of the industry's turnover comes from lower-spending, but more numerous, domestic tourists. Bob Cotton, head of the British Hospitality Association, says that while London and Manchester are reeling from a double blow of fewer overseas visitors and a slump in business travel, the countryside is getting a fillip as Brits escape there for weekend breaks rather than visiting Paris or Prague. Business in rural areas such as Cumbria and the West Country is, he reckons, “the strongest it has been in 10 or 15 years.”

That's fine for the countryside, but it won't help the cities, which rely on foreigners. As Mr Jenkins so shrewdly says, “2003 will be a wonderful year to visit—it won't be crowded.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Taxation

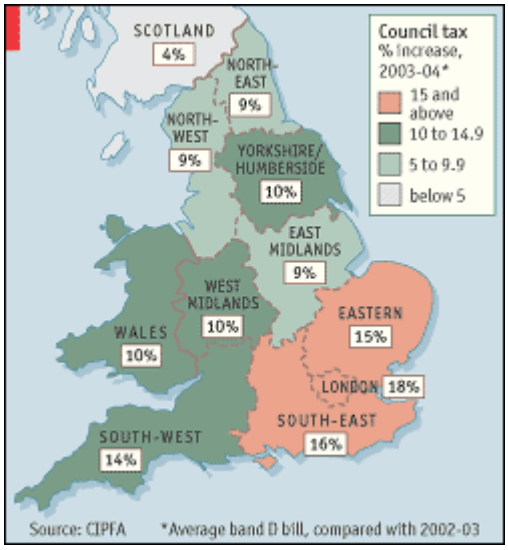
Blame Whitehall

Mar 13th 2003
From The Economist print edition

Council tax is rising sharply

WITH the housing market faltering, conversation about rising property prices has been replaced by conversation about rising property taxes. Along with higher national insurance contributions in April will come a thumping increase in council-tax bills. Most of the big rises are in southern England. Local authorities there are accusing the government of redistributing money to the north through the maze of local-government finance.

Council tax will raise £16.6 billion in 2002-03, 26% of current spending by local government. It has been rising quite fast for some time. In the six years since Labour took office, it has increased at an annual rate of 8%. Central-government receipts have risen by 5½% a year.



Now it is poised to increase even faster. Council-tax bills in England will rise on average by 13% in 2003-04, says the Chartered Institute of Public Finance and Accountancy (CIPFA). This will be easily the highest increase since council tax was introduced ten years ago. It means that the average band D taxpayer will be paying more than £1,000 a year for the first time.

Many councils in southern England have announced even bigger increases. Wandsworth, a London borough long renowned for its low council taxes, is planning a rise of 45%. According to CIPFA, the average increase in London is 18%. The pain extends to southern areas outside the capital, with increases of 17% in Cheltenham and 19% in Guildford. By contrast, council tax is scheduled to rise on average by just 4% in Scotland. Many authorities in the north of England get off quite lightly, with increases below 10%. In Manchester bills will rise by only 5%.

The government says that it made a generous overall increase in grant of 6%. It denies that a new formula for working out grants is intended to redistribute money from the south to the north. Instead, it is supposed to reflect local needs more accurately. In any case, a transitional system of floors and ceilings is dampening the impact of the new formula in 2003-04. This means that no local authority with educational responsibilities will get an increase in grant of less than 3.5% or more than 8%.

However, many councils are having to spend more than the government assumed in its settlement. Ministers appear to have assumed unrealistically low public-pay settlements, says Tony Travers of the London School of Economics. Such pay pressures are especially fierce in London and the south-east. Furthermore, the government has ring-fenced the entire increase in spending on schools, so that councils have to allocate this extra money even if it gobbles up much of their overall increase in grant.

Councils that do need to spend more than the government reckoned when distributing grants have to increase council tax a lot. Suppose a council receives 3.5% more in its grant but works out that it needs to spend 5% more in total. Because council tax raises only a quarter of total revenue, that entails a 9.5% increase in council tax. “This gearing effect means that an apparently small differential in the increases in grant has a much bigger percentage impact on council-tax bills,” explains Mr Travers.

Despite the furore, the council tax is a fiscal minnow, accounting for only 4% of total government revenues. It arouses so much indignation because it is visible yet mainly determined by an impenetrable

system of central-government funding. This is the kind of mess local government can get into in an over-centralised state.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Crime

Beggar off

Mar 13th 2003
From The Economist print edition

Low-level crime requires more police on the ground, not more legislation

Get article background

AFTER 15 criminal justice acts in five years, the government has not lost its enthusiasm for legislation. This week, the home secretary, David Blunkett, produced another set of proposals to tackle street crime and anti-social behaviour.

The white paper seeks to provide quicker action against persistent young offenders, parents of truanting children and drug dealers. The police will be authorised to hand out on-the-spot fines of up to £80 for low-level street crimes such as drunkenness and disorderly behaviour. Disruptive tenants will lose housing benefit.

The most controversial proposal is to make begging a criminal offence. Civil rights groups say this will push vulnerable people into drug dealing and prostitution. But ministers argue that most beggars are addicts who are best dealt with through treatment and community sentences.

Mr Blunkett, who comes from a tough working-class background, dismisses middle-class critics of his proposals who, he says, have no idea of the problems low-level street crime causes. “Those who are in favour of a free-for-all anarchic society are the people who don't have to suffer it,” he says scornfully. He has some support among Labour MPs. Frank Field, MP for Birkenhead, who is shortly to publish a book on “The Politics of Behaviour”, says that a few disruptive families and a handful of teenage louts can cause mayhem on council estates and in town centres.

This continuing yobbery perhaps explains why, although crime has fallen since Labour came to power in 1997, nearly a third of people say that fear of being a victim of crime undermines their quality of life. The latest British Crime Survey shows that 69% think that crime is continuing to rise, up from 56% last year.

But whether more legislation is the answer is doubtful. The government's previous attempt, the 1998 Crime and Disorder Act, has not worked out as planned. Child curfew orders proved unworkable, night courts too expensive, and the anti-social behaviour orders bureaucratic and difficult to enforce.

Much of the inspiration for Labour's latest policy on low-level crime comes from the success of the former New York mayor, Rudolph Giuliani, in cleaning up his city. The “broken windows” theory—that unchecked yobbery encourages more serious offences—is persuasive. But cracking down on small-scale criminality requires large numbers of police. New York, which has a similar population to London, has more than 50,000 officers, twice as many as London and four times as many per square mile. Each London policeman has to deal with an average of 41 crimes, six times as many as New York's.

Ministers point out that they are committed to increasing police numbers, yet the current strength of the force, just under 130,000, is only about 2,000 more than they inherited. Another 1,500 community support and neighbourhood wardens have also been employed. The shadow home secretary, Oliver Letwin, last week committed the Tories to increasing police numbers by 40,000—though how a party committed to cutting public spending will finance this is, as yet, unclear.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com WORLD BRITAIN
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Bagehot

Life after Tony

Mar 13th 2003
From The Economist print edition

What would politics look like with Gordon Brown as prime minister?

Get article background

WITHOUT a shot being fired, the war has already done a great deal of damage, and its main casualty is Tony Blair. Although the chances of regime change in Downing Street are still low, it no longer seems completely ridiculous to consider how politics might look if Mr Blair were to go.

Much would depend on how Mr Blair left office. This week the idea of a formal challenge to his leadership has been gaining ground. That is the stuff of left-wing fantasy. But he might just go of his own volition, if he feels he has lost the confidence of his party. His face is etched with exhaustion and worry. Many Labour MPs think he has shattered the United Nations and divided the European Union. If, following the failure to win support for a second resolution in the United Nations Security Council, he has to rely on Conservative votes in the House of Commons to carry a motion in favour of military action; if the war is long and its aftermath bloody; if all this happens and he feels that his foreign policy has ended in catastrophe, he might not even want to carry on in the job.

Nine years ago, during *that* dinner at Granita, Gordon Brown, the chancellor of the exchequer, could not have envisaged that such dreadful circumstances might finally deliver him his inheritance. It is, however, safe to assume that the chancellor is putting a brave face on his old friend's difficulties and plotting his every move should things turn even nastier for the prime minister. Some have expressed surprise at both Mr Brown's unstinting commitment to find the money for the war and his call this week for “the whole nation” to support Mr Blair. But Mr Brown knows he has nothing to gain from disloyalty now. Like “first in, first out” Harold Macmillan at the time of Suez, the chancellor must wait on events outside his control.

Mr Brown should easily see off potential rivals for the crown. His reputation has taken something of a battering lately as the economy has deteriorated, and, with it, the chances of avoiding either a growing deficit or further tax increases. But, with the possible exception of David Blunkett, the home secretary, Mr Brown still stands head and shoulders above the rest of the cabinet. Mr Blunkett is widely admired, but his blindness, and his somewhat sneering dismissal of civil libertarian critics who accuse him of pandering to right-wing tabloid newspapers, might count against him. Should Mr Blair fall on his sword, it is Mr Brown who would succeed him.

What would change? In some ways, not much. The differences between Mr Brown and Mr Blair may have increased with the prime minister's growing frustration over the slow pace of public-service reform, but it is only recently that Mr Blair has had the confidence and the conviction to challenge the chancellor's hegemony over domestic policy. According to a former Treasury mandarin, during Labour's first term Mr Brown would allow Mr Blair no more than two interventions a year. Lately, the number has gone up, as the rows over foundation hospitals and university funding testify, but most of what Labour has done in office still carries the imprimatur of the chancellor rather than the prime minister.

As far as policy goes, a Brown premiership would, paradoxically, mean more, not less, continuity. Mr Blair may still be feeling his way over the extent to which market disciplines can be introduced to the public sector, but he wants to keep pushing. Mr Brown has decreed precisely where the boundaries should lie between the private and public domains. And while both men insist that there need be no trade-off between equity and efficiency, it is increasingly clear that Mr Brown leans towards the former and Mr Blair the latter. Mr Blair, for instance, regards Mr Brown's opposition to a “two-tier” health service as an attempt to rule out changes needed to make the whole thing work.

Cold porridge

Voters, untutored as most of them are in the theology of public-service reform, perceive these distinctions only dimly. But middle England tends to feel that, in domestic affairs at least, Mr Blair instinctively shares its hopes and fears in a way that the dour and intensely Scottish chancellor does not. Mr Brown, unlike Mr Blair, is a Labour Party man through and through: he understands it, likes it and is more than willing to indulge it. And that makes him a far less reassuring figure for the aspiring middle classes who brought Margaret Thatcher, and then Mr Blair, to power, than is the current prime minister. At its crudest, they would trust Mr Blair not to put their taxes up by more than is absolutely necessary. Quite rightly, they would not have the same faith in Mr Brown.

This thought will not worry most Labour MPs. The government's huge parliamentary majority looks unassailable. But an opinion poll in the *Times* this week on attitudes to taxation and spending shows why they should be concerned. Only 16% of those polled were prepared to consider further tax increases to fund public services, while 59% considered the money so far pumped in to have been either very or quite badly spent. Something has changed since this time last year, when Mr Brown's announcement in his budget of ever larger amounts of money for the health service was greeted with popular jubilation. And that something—probably growing economic insecurity—is likely to dampen voters' enthusiasm for a man increasingly seen as a tax-and-spend chancellor.

There's another chain of events which Mr Blair's departure from Downing Street would trigger, and which might also help change voters' minds. Nothing would delight Tories more than Mr Blair's replacement by Mr Brown. Suddenly, sensible people would see the point of being leader of the Conservative Party. If Tony Blair becomes a casualty of war, Iain Duncan Smith will not be far behind.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

OPINION

Launching Telecoms II

Mar 13th 2003
From The Economist print edition

New wireless technologies that render bandwidth irrelevant could kick-start a revolution in communications bigger than the internet

AMERICA recently had a chance to kick-start a whole new engine of technological innovation—with business opportunities that could have dwarfed those generated by the internet a decade ago. Through political infighting, it muffed it. By voting in effect to maintain the status quo, rather than embark on reforms aimed ultimately at dismantling the country's antiquated regulations that govern the telephone network, the Federal Communications Commission has consigned the telecoms industry to further floundering.

Call the missed opportunity “Telecoms II”. Unlike its predecessor, this is all about freeing people from having to plug into telephone lines and cables—and letting them have speedier data connections than they ever imagined. It all started with digital cell phones a decade ago, but has now exploded into a panoply of radio technologies—from wireless LANs (local area networks) to smart antennae, ultrawide band transmission and mesh networks. Despite the parlous state of the telecoms sector, the pace at which start-ups offering the new WLL (wireless local loop) technology have been raising money shows that at least the market has faith in the future. Apart from providing an alternative over the “last mile” to homes and offices at modest cost, WLL delivers internet access ten times faster than the speediest broadband connections the telephone companies or cable TV firms can offer (see article).

What could make Telecoms II the economic engine of the next decade is the way such networks are largely “user financed” and deployed in an unplanned, ad hoc manner—and thus free to grow exponentially if demand for them takes off. David Reed, a telecoms expert who helped design the internet, points to how, over the past year, the 802.11b (“Wi-Fi”) standard has created an entirely new market for wireless networks in the home and office—without any form of government initiative and during the depth of telecom's worst recession. That is what can be done when manufacturers and users are set free to exploit just a tiny unlicensed chunk of the radio spectrum. But to make Telecoms II happen in a big way, regulators have to stop policing the radio spectrum as if it were some precious, scarce resource.

The problem is that the regulations governing the separation of broadcasting channels, to prevent neighbouring stations from interfering with one another, were established 70 years ago and reflect the technical limitations of the time. Today, instead of being a crude tunable circuit built of coils and condensers, a radio is more likely to be a piece of software burned into a DSP (digital signal processor) chip that can reconfigure itself on the fly—hopping from channel to channel, thousands of times a second, while seeking gaps through which to send bursts of data. With frequency-hopping “softradio”, interference is irrelevant.

That means broadcasting channels can be crammed cheek by jowl, with no buffer zones between them. Also, when such adaptive digital radios are allowed to co-operate with one another, the network's capacity can actually increase—rather than decrease, as was long believed—with every new radio added. In short, with “co-operative gain”, there is no upper limit to the amount of information that can be transported. Thus, bandwidth—as a measure of communication capacity—is also irrelevant.

Forget interference

Before such disruptive ideas can be used to unleash the next big wave of technological innovation, regulators have to rid themselves of obsolete notions about interference. Because of such fears, “repeater stations”—the key to co-operative gain—have been largely barred from wireless networks.

Another regulatory hangup is the way networks operating on different frequency bands—say, Wi-Fi and mobile phones—have been prevented from interconnecting.

But the biggest problem inhibiting Telecoms II is the habit of reserving various radio bands for specific services. Historically, that made sense when it was hugely expensive to build radios that could be tuned to more than a few adjacent bands. Today, digital radios that can dynamically jump all over the spectrum are to be had for the price of a microchip.

America has missed its chance to start the deregulatory ball rolling, first with the wired networks and then with the wireless ones. Now it is up to Asia and Europe to avoid making the same mistake.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

MONITOR

Unfixing fixed wireless

Mar 13th 2003
From The Economist print edition

New wireless technologies for delivering broadband to the home are about to challenge DSL and cable

WIRELESS means mobile—or so many believe. Whether it is the fuss over third-generation (3G) mobile phones and multimedia on the move, or the unexpected success of Wi-Fi hotspots that give laptop users fast internet access without having to plug into a telephone socket, people think of “wireless services” as something to use while away from the home or the office. But another type of wireless technology may be even more important. Known as “wireless local loop” (WLL), it could reignite the consumer broadband market.

The telecoms boom left a glut of fibre-optic cable along trunk routes, but this links directly only to the largest customers. Homes and small offices that want high-speed internet access usually subscribe to either a digital subscriber line (DSL) or a cable-television service. Both are far from ideal: the phone wires used by DSL and the television cables tend to be owned by monopolies, and neither was designed for surfing the web. Retrofitting a 1950s telephone line for broadband takes a lot of work, making cheap DSL hard to supply profitably.

In principle, WLL has no such drawbacks. Indeed, many see it as an ideal solution to the local access problem. Radio waves already reach everybody's home or office. So there is no need to dig up streets or shoehorn data into a system designed for voice. Of course, most WLL systems require their own dedicated radio frequencies, but regulators have been fairly generous with these—selling enough licences to competing WLL operators at a fraction of the prices paid by mobile-phone operators. Some can even use the same free, unlicensed frequencies in the 2.4 and 5 gigahertz bands as Wi-Fi, opening up the market to anyone.

At least, that is what WLL proponents say. In the real world, wireless has so far lagged behind both cable and DSL. The problem is that, until now, most WLL systems were fixed and required a clear line of sight from the customer's building to the service provider's base-station. Like satellite dishes, they had to be aligned by expert technicians, and could be knocked off target by snowstorms or wind. Unlike satellite dishes, their reception was easily disrupted by events on the ground. People who had a system installed in winter often found that it stopped working in spring, as trees sprouted leaves that blocked the terminal's view of the base-station.

The latest WLL technology could change this. Unlike its predecessors, it does not require a line of sight, or outdoor installation. San Francisco-based Soma Networks, for example, has developed a terminal that can be placed almost anywhere in a customer's building. Like a mobile phone, it can even be carried around and used from other points within radio range of a service provider's base-station. The terminal is little bigger than a video cassette but has to be plugged into an electric outlet. This is not particularly convenient, but portability is not its main selling-point.

Rather than the ability to move around, service providers are attracted to the new WLL's “self-provisioning” feature. Users can simply buy Soma's terminal in a store and plug it into their PC and telephone as soon as they get home, without needing to call out a technician. This is cheaper for the provider, and more convenient for the customer. The first time the terminal is switched on, it directs web surfers to a portal where they enter their billing information and choose which voice or data package they want.

The device is capable of transmitting or receiving at up to 12 megabits per second—about ten times faster than most DSL connections and more than 200 times faster than a dial-up system. This way, customers can upgrade to a faster service at the click of a mouse. As more customers sign up, service providers simply add more base-stations because all can use the same frequency without causing interference. Previous WLL systems required adjacent cells to use different frequencies, making it hard to increase network capacity with demand.

Exactly what service packages will be on offer is up to the network operator, but most WLL manufacturers envisage pricing based on service guarantees and peak speed, not volume of data or time spent online. The network is able to prioritise traffic, ensuring that guarantees are honoured during busy periods. Even more importantly, it means that lucrative voice traffic—the service from which telephone companies still make most of their money—can be given priority over data. Rather like text messaging on a mobile phone, data travel over spare network capacity not used by telephone calls.

The similarity to mobile phones is not coincidental. Soma based its hardware around UMTS (Universal Mobile Telecommunications System), the 3G technology that is slowly becoming available in Europe and Japan. Entering a market dominated by the likes of Nokia and Ericsson may seem ambitious, particularly when that market's size and even existence are doubted by many analysts. But Soma is not really trying to beat the mobile-phone firms at their own game. The company has left out the parts of UMTS that deal with “hand-off”, the complex process that lets users move between cells without dropping calls, and it does not have to worry about miniaturisation or battery life.

Other companies have had the same idea, although most have focused on different applications. Another Silicon Valley start-up, IPWireless, has also cherry-picked the UMTS standard, while Texas-based Navini Networks has its own closely related technology. Both of these are aiming for true mobility, retaining the hand-off circuitry and trying to make terminals as small as possible. (They are currently about the size of a videotape, but both firms claim that cards which can fit inside a laptop are coming soon.) In the process, however, they have sacrificed telephony and focused solely on data-only systems.

Not every WLL company is adapting 3G technology. Flarion Technologies, a start-up firm backed by Cisco Systems, among others, has an approach based on OFDM (orthogonal frequency division multiplexing), the technology used in the fastest types of Wi-Fi and some digital-television systems. OFDM can reach even higher data speeds than 3G, by splitting a high-speed signal into several lower-speed transmissions and sending each via a different path. Flarion's system should provide a similar user experience to Wi-Fi, but covering a whole city rather than only a few hotspots. Like IPWireless and Navini, Flarion lacks genuine telephony support, gambling that internet services will be more important in the long term.

They could be right. It is already possible to make phone calls through all three systems using VOIP (voice over internet protocol), a technique that carries calls across the internet or other networks based on the same architecture. VOIP requires special phones, and most people think it still sounds inferior to normal telephony, but it is improving all the time. Flarion hopes that its technology will eventually be embedded inside VOIP cell phones, though for the moment it is concentrating on cards for laptops.

How long it will be before you can use this technology depends on where you live. America's three big long-distance carriers—AT&T, Sprint and WorldCom—all have WLL spectrum licences. To date, only WorldCom has selected a system, but its roll-out has been delayed by its bankruptcy filing. Soma, IPWireless, Navini and Flarion have also shipped systems to smaller service providers in America and to larger carriers in Japan and South Korea. All agree that broadband is the main selling-point, and mobility just an added extra.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

Turnaround for wind power

Mar 13th 2003
From The Economist print edition

WIND power is enjoying something of a renaissance. But for it to become a significant source of energy, it must be able to generate electricity at a cost that is competitive with fossil-fuel sources. One way to do this is to make cheaper windmills. Until now, large-scale wind turbines have faced into the wind. That makes them easier to design but heavy. Because the wind blows the turbine blades towards the supporting structure, they have to be made stiff enough to stop them bending and hitting the tower.

Back to the wind

If the whole contraption could be turned around, and the fan placed downwind from the support pole, this problem would disappear. The blades could then be less stiff, and would therefore be lighter and up to 25% cheaper. So why, throughout history, have windmills always pointed upwind rather than downwind? The answer is that downwind turbines are tricky to design and subject to all sorts of aerodynamic interference caused by the supporting tower.

Tricky as they are, these downwind interference problems now seem to have been licked by a company in Bellevue, Washington, called appropriately the Wind Turbine Company (WTC). Although smaller than the largest upwind turbines, the firm's prototype of a downwind turbine can generate 500 kilowatts of electricity.

The main problem that the WTC had to solve was how to damp the vibrations caused when a blade passes through the “wind shadow” of the tower. Clever design can minimise these. But it is only with the tumbling price of supercomputing power in recent years that it has become practical to run the large “computational fluid dynamics” programs needed to find the optimum solutions.

Larry Miles, president of the WTC, says his firm plans to upgrade the prototype to 750 kilowatts, using a lightweight blade specifically designed to take advantage of the downwind configuration. Once this is tested, it will be shipped to a site on the Columbia River, where a commercial demonstration wind-farm is to be established. Calculations suggest that downwind power could be generated on the site for about 3.5 cents per kilowatt-hour—ie, competitive with coal.

According to Sandy Butterfield of the National Wind Technology Centre near Boulder, Colorado, downwind turbines should begin to dominate in coming years—provided, that is, the wind-power industry can be persuaded to change its conservative ways. The answer to that, as they say, is blowing in the wind.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

Flu shots for computers

Mar 13th 2003
From The Economist print edition

How to make computers fight worms and viruses as humans do—by relying on their immune systems

ON A small enough scale, biology resembles computing: bases and genes are like bits and bytes, manipulated according to logical rules. Conversely, on a large enough scale, computing resembles biology: the internet is like a vast ecosystem where all kinds of digital organisms thrive. Knowledge from one field can thus be useful in the other. The application of computing in biology, particularly since the mapping of the human genome, is well known. But there is traffic in the other direction, too, as biological ideas are applied to computing. For example, Sana Security of San Mateo, California, has devised a way to use immunological principles to spot computer-security breaches.

Sana's software, called Primary Response, has its origins in a research project at the University of New Mexico in Albuquerque. The idea was to mimic the ability of natural immune systems to distinguish “self” from “non-self”, says Steven Hofmeyr, one of the researchers, who went on to found Sana.

Once installed, Primary Response monitors the behaviour of specific programs running on a computer, such as remote-login, web, mail and database servers. Most attacks exploit flaws in these programs to gain unauthorised access to a computer. Over the course of a day or so, it builds up a profile of “normal” activity by looking at the patterns of system calls—requests to access system resources—made by such programs, just as an immune system builds up a profile of “self”.

Any subsequent deviation from this profile is then regarded as an attack. Most attacks disrupt the normal pattern of system calls, typically by causing a deliberate error such as a buffer overflow. The “SQL Slammer” worm that disrupted the internet in January 2003 exploited a buffer-overflow flaw in Microsoft's SQL Server 2000 database software.

When an attack is detected, Primary Response can block all file access associated with the program under attack (to prevent files being stolen, modified or deleted) and stop new programs from being launched. It also gathers forensic data, such as file-access details, snippets from log files and a list of open network connections, making it easier to work out what happened.

This approach has a number of advantages. Intrusion-detection systems, which are widely used to monitor network traffic for unusual behaviour, have a reputation for crying wolf. Typically, they generate thousands of alerts every month—so that distinguishing a genuine attack from a false alarm is difficult. Primary Response tends to generate only a handful of false alarms a month, say customers who have tested it.

Another advantage is that Primary Response is not “knowledge-based”. In other words, it does not rely on assumptions about the nature of an attack, which have to be made in advance and may be wrong. Instead, like a natural immune system, it works by distinguishing normal “self” from abnormal “non-self” behaviour. Anti-virus software, in contrast, commonly uses “signatures” to recognise particular viruses. Primary Response's approach is more flexible and can provide broad coverage against a wide range of attacks, including unknown ones.

Not all anomalies are malicious. Some are caused by misconfigured or faulty hardware or software. Primary Response is thus able to provide “a general notion of system health” as well as spotting break-ins, says Dr Hofmeyr. Hence the company's name. Sana was initially known as Company 51; its new name, appropriately enough, is the Esperanto word for “healthy”.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

Will parallel chips pay off?

Mar 13th 2003
From The Economist print edition

With more transistors on a chip than they know what to do with, some semiconductor firms are adopting the parallel-processing approach of supercomputers

SEMICONDUCTOR firms make integrated circuits with critical dimensions that are shrinking in leaps and bounds. With chip sizes down to 130 nanometres (1nm is a billionth of a metre) and heading fast towards 90nm, a square centimetre of silicon can now have up to 100m transistors etched on to its surface. For the first time this is creating an opportunity for proponents of parallel processing on a single chip—ie, a processor that breaks tasks down into lots of little jobs that are then tackled simultaneously. Some even believe that the semiconductor firm that cracks the parallel-processing problem could be the next Intel.

It is not certain that parallel processing at the chip level will succeed. All the leading processor designs are essentially uniprocessor in layout, with limited internal parallelism. But even when the core of a processor is accompanied by a large cache of memory, it still occupies only a small portion of a contemporary digital chip. So there is room on board most processors for multiple cores that are capable of doing at least a modicum of parallel processing.

Over the past five years, dozens of chip developers, usually working without their own fabrication plants, have introduced designs that incorporate hundreds of microprocessors networked together on single chips. PicoChip Designs, a “fabless” start-up based in Bath, England, has adopted the parallel approach to digital signal processing for third-generation mobile-phone networks. The company says that its PC101 chip is being evaluated by at least one leading supplier of base-stations for mobile-phone systems. PicoChip's design includes some 430 processors, interconnected on a single chip.

Meanwhile, a Munich-based company called PACT has integrated 128 processors on a giant chip of its own. The difference is that cores in the PACT chip process data in 32-bit chunks; the PicoChip design does it 16 bits at a time. A second British start-up, Siroyan of Reading, has been working on a “clustered” digital signal processor (DSP) approach called OneDSP. Other parallel-processing start-ups in Britain include Elixent and ClearSpeed, both based in Bristol.

In North America, Improv Systems of Beverly, Massachusetts, is also designing a “scalable”DSP type of chip. Internet Machines of Agoura Hills, California, and Hyperchip of Montreal are both in the massively parallel camp. These are just a handful of parallel-processing chipmakers that have actually produced silicon. Many more hopefuls are now entering the business.

Why the rush to parallelism? One answer is that semiconductor firms do not actually know what to do with the vast numbers of transistors they can now put on a single chip. The industry's ability to design and verify something with the complexity of 100m interconnected transistors has not kept pace with its ability to manufacture it.

Most contemporary chips are composed of multiple blocks of lesser complexity, proved in a previous generation, but bolted together like Lego pieces during the design stage to make a new layout. An alternative approach is to design something less complex in the first place, and then to replicate it across the surface of the chip—to create a parallel-processing architecture.

Easier done than said. While not difficult to produce, a parallel-processing device is notoriously difficult to get running properly. As the number of processors increases, the time spent on actual processing diminishes and the time spent communicating—or waiting for other processors to communicate—increases. The point at which the benefits from adding more processors vanish depends on how the individual processors are interconnected and on the type of problem they are seeking to solve.

This explains why parallel processors are often used for specific applications. Limiting the scope of the problems they try to solve simplifies the developers' work in tuning their parallel architectures for optimum performance. One of the most common applications is in networking, especially wireless LANs (local area networks) and third-generation mobile phones. So far, however, none of the parallel-processing chip firms has come up with a commercial winner. That invites further questions about whether Intel, AMD and Texas Instruments can afford to ignore the rush to parallelism.

Actually, they are not. In January 2003, without the usual hoopla, Intel quietly revealed a few details of the parallel-processing architecture that it has under development. The Intel architecture is based on an array of several different types of processors that vary in complexity. The processors are connected through a mesh of nearest-neighbour connections that favours the so-called “data-flow” form of architecture, used widely by enterprising supercomputer builders in the 1980s.

The purpose of the new Intel design is to provide the guts of a reconfigurable radio terminal. The term “software-defined radio” is used to define a kind of mobile terminal that can sniff the radio ether and adapt itself to whatever networks it finds out there—in effect, reconfiguring itself on-the-fly to whatever radio protocol is being used.

History shows that the key to success, however, will not be the types of processor selected for a parallel architecture, nor the way they are connected. More important will be the combination of physical architecture and software. That was the case with Microsoft's MS-DOS operating system and Intel's 8086 processor architecture, which drove each other's sales upwards during the 1980s, and by the 1990s had created the dominant “Wintel” force in information technology.

The key to success in parallel processing on a chip will be the ability to map computational algorithms efficiently on to an array of resources, and hide the complexity from both programmer and user. The company that can do that has a shot at being the next Intel. And that just might be Intel itself.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

A bug's life for robots

Mar 13th 2003
From The Economist print edition

Creepie-crawlie robots are learning to venture where wheeled machines stumble and humans fear to tread

Roachmobile on the march

THE invention of the wheel was revolutionary, greatly enhancing mankind's mobility. But wheeled vehicles have their limitations. Certain landscapes and activities—eg, climbing a tree, or walking on rocks—do not lend themselves to being explored by means of a rolling machine. Here, animals such as geckos, snakes, cockroaches and crabs have a distinct advantage. For example, roaches can move 50 times their length in a second. On a human scale, that translates into 300kph (200mph). Thanks to advances in engineering and prototyping, a new generation of biologically inspired robots is beginning to crawl all over the place. Cockroaches are the inspiration for some of the most ambitious.

At the forefront of this interdisciplinary field is Robert Full, professor of integrative biology at the University of California, Berkeley. Dr Full cheerfully admits that some of his real-life critters can be disgusting, but they offer valuable insights into how to conquer challenging terrain. In his Poly-PEDAL Laboratory at Berkeley, Dr Full conducts locomotion studies by putting living specimens on treadmills and recording their movements with high-speed cameras. His research has led to designs for a number of robots, including a wall-climbing creature called Mecho-Gecko and a six-legged robot called RHex that scurries on land like a cockroach and will soon swim under water like a crab. One day, Dr Full and his cohorts believe that such machines will go where humans fear to tread—on toxic-waste sites, into the battlefield and even on planets. No surprise that the Defence Advanced Research Projects Agency, NASA and the Office of Naval Research sponsor much of the research.

According to Martin Buehler of the Centre for Intelligent Machines at McGill University in Montreal, the usefulness of wheeled robots has reached its peak. Research into many-legged robots, however, is still in its infancy, and the potential pay-off from them could be huge. The main focus is on creatures with four or more legs. There is a big advantage here: multiple limbs make a robot more stable and reliable. Also, the leg design can be a lot simpler, explains Dr Buehler, who has been working on machines such as RHex for years. Two-legged robots, by comparison, are more difficult to design—not surprising when you consider that early tetrapods preceded the first bipeds by some 80m years.

Likewise, it has taken engineers years to start duplicating the principles of animal locomotion, as well as emulating the complexity of some of the materials found in nature. These days, parts are first modelled on a computer, then produced by a rapid prototyping process. This allows electronic parts needed for actuation to be encased in polymer shells, and whole limbs to be built out of materials with stiffnesses ranging from soft to hard, similar to muscle and bone.

With insights from Dr Full's cockroaches, a Stanford team has gone from a creature called “Sprawl”, which could barely walk, to a more mobile “Minisprawl”, advancing to a quite agile “Sprawlita”, and now to batches of “Sprawlettes”—all within four years. As the names suggest, the robots feature slightly angled, springy legs. Although the current version is none too smart, its simple, flexible design successfully mimics a cockroach's mobility. Half the size of a shoebox, it can scamper at a rate of five times its own body-length per second. The focus is now on enhancing locomotion by adding more sensors, such as antennae, to help the robots to manoeuvre around obstacles or to follow walls.

So far, only wheeled robots have been used in disaster areas, such as the World Trade Centre in New York. That could change within a few years. Researchers at Carnegie Mellon's Robotics Institute are working on an artificial serpent, originally conceived at NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California. With five joints, each with two degrees of freedom, the snake-like prototype would be able to thread through fragile, collapsed structures—as if it were performing minimally invasive orthoscopic surgery. Meanwhile, JPL has moved on to develop tiny worm robots, hopping robofrogs and spider-bots—with the aim of using them on other planets in place of wheeled robots that could get stuck.

The spider-bot, one of JPL's most recent creations, features only six legs, although in other respects it bears a striking resemblance to the natural eight-legged arachnid—and even fits in the palm of a hand. The idea is to make small, cheap and low-powered robots that can communicate wirelessly while manoeuvring through rugged terrain. Hundreds of spider-bots could then be dumped in one place and left to co-ordinate the exploration of a given area. If individual spider-bots got lost or stuck, the rest could still complete the survey between them. One spider-bot has already conquered MarsYard, JPL's simulated Martian landscape. JPL is now working on the next generation, experimenting with different types and numbers of legs. Now, that is something nature does not do in a hurry.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

MONITOR

Waste not, want not

Mar 13th 2003
From The Economist print edition

It is economics, not technology, that is holding back the recycling of electronic waste. The European Union has a plan to change that

CHALK one up for the law of unintended consequences. The European Union's recently approved directive on “Waste Electrical and Electronic Equipment” (WEEE) may just provide a solution to the recyclers' perpetual dilemma: how to bring in enough volume to make recycling a going concern. Under WEEE, which member states must implement by 2004, producers must pay the cost of taking back old equipment and recycling a hefty percentage of its weight. A companion directive to WEEE restricts the use of hazardous substances, including lead and cadmium.

WEEE takes aim at Europe's growing mountain of e-scrap. The pile of old cookers, washing-machines, fridges, computers and televisions is now accumulating at 6m tonnes a year, a rate that is expected to double by 2010. Countries such as Belgium, Norway, Sweden, the Netherlands, Austria and Switzerland have fairly well-developed recycling programmes. And individual producers, such as Nokia and Fujitsu Siemens Computers, have take-back policies. But until now, collection targets have not been mandatory. Most e-scrap still ends up as landfill, wasting resources and posing risks to health and the environment.

Washing-machines and fridges contribute 40% by weight of WEEE and find a ready market as iron and steel scrap. Computers, on the other hand, make up only a few per cent of the waste, but are far more complicated to recycle. Monitors require careful processing owing to their high lead content. Iron, copper and aluminium parts are separated and sent to appropriate smelters. Circuit-boards are shredded and sampled to analyse the materials they contain before they, too, go to the smelters.

The problem with smelters, says Geoffrey Kelsall of Imperial College, London, is that they are often far away. Transport is costly, valuation tricky and payment slow. Dr Kelsall has patented a method he calls “engineered corrosion” which, coupled with electro-winning (ie, removing metals from solution), can recover gold, silver, palladium, copper and other metals from shredded circuit-boards.

Smelting has a further disadvantage in that shredding the boards to recover the metals destroys their components. Derek Fray, a metallurgist at Cambridge University, has patented a process that selectively leaches the lead-based solder used to anchor components, freeing both for reuse, while leaving the copper content for recovery later. The process can alsobe used during manufacture to loosenfaulty components from a circuit-board and so save throwing the whole thing out.

Take all the metal and glass parts away, and what is usually left is plastics. Although engineered plastics are surprisingly valuable, most of them still end up in landfills, says Michael Biddle, chief executive of MBA Polymers in Richmond, California. That is because they are so hard to separate. Buyers want pure materials, but plastics may be hard to identify and often contain pigments, additives, screws and labels. Although flakes can be separated using centrifugal force and electrostatic charge, and techniques such as X-ray fluorescence can help to detect additives, it is often cheaper simply to bury scrap plastics.

Poor sorting of plastics is not the only problem, says Anne Mayes, a polymer scientist at the Massachusetts Institute of Technology. The temperatures needed to process plastics degrade their mechanical and optical properties. As a result, they can be recycled only once and always to a lower grade—as, say, carpet fibre. Dr Mayes and her group have come up with a new class of plastics called “baroplastics” that can be melted and formed into products not by heating, but by placing the materials under pressure. Though the work is only at an early stage, the materials can probably be recycled many times into new shapes at room temperature, without losing their properties.

At present, the cost of recycling is greater than the value of the products extracted. WEEE could generate

enough demand to make recycling profitable. However, somebody will have to pay for all that e-cycling—and do not expect manufacturers to pick up the bill alone.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

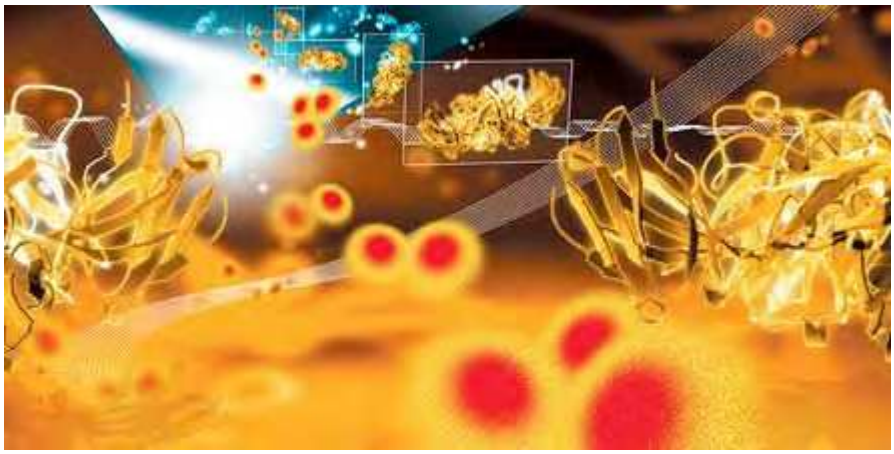
Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

BIOTECHNOLOGY

The quest for the protein chip

Mar 13th 2003
From The Economist print edition



Despite their complexity, can protein biochips do for proteomics what DNA microarrays did for genetics?

A PICTURE may be worth a thousand words. But a gene is worth thousands of proteins that paint a rich picture of human biology. For biologists entering the burgeoning field of proteomics, that is proving a blessing and a curse.

Studying proteins has long been a slow, arduous process. In the first place, more than 3m proteins make up the human proteome, compared with about 40,000 genes in the genome. And unlike strands of DNA, proteins are three-dimensional units whose orientation and folding play an important role in their function. Equally vexing for researchers, proteins tend to be fragile and prone to denaturing while being studied.

The lumbering pace of most protein analysis makes matters worse. Scientists have long used a combination of two-dimensional gel electrophoresis to study protein expression; mass spectrometry to identify unknown proteins; and enzyme-linked immunosorbent assays (ELISA) to watch protein activity and interaction. The results can take weeks. Even then, they may not be as thorough as is needed.

A number of recent start-up firms believe they have answers to such problems, in the form of protein chips. Such devices, no bigger than a postage stamp, borrow from the concepts of DNA micro-arrays (or “gene chips”)—the gene-sequencing factories that did for genetics what microprocessors did for personal computing. The main promise of protein chips is speed and efficiency. In theory, they can identify, characterise and screen thousands of proteins in less than an hour, using little more than a single drop of blood. As such, they promise to advance proteomics to a wholly new level.

Industry experts see brighter prospects for protein chips than even gene chips have experienced. Companies such as Ciphergen in Fremont, California, Zyomyx in Hayward, California, Biosite Diagnostics in San Diego, California, and Biacore in Uppsala, Sweden, see enticing opportunities as researchers pay ever more attention to proteomics. In 2001, BioInsights, a market-research firm in Redwood City, California, predicted that sales of protein chips for such applications as drug discovery and the testing of interactions between proteins would soar tenfold, to reach $700m by 2006.

With so much going for them, firms on the cutting edge of protein-chip design have attracted more than $150m in venture funding over the past couple of years. No fewer than 25 companies have thrown their hats into the ring, with business plans for using protein chips for everything from drug discovery and

target validation to therapeutic applications and diagnostics.

Today, however, the fledgling protein-chip industry is far less sanguine. Only a handful of companies has managed to show any real growth in revenue. For its part, BioInsights has now revised its bullish forecast down as protein-chip makers grapple with the problem of how to commercialise such a complicated technology, while trying at the same time to convince customers that there is more to biotech than genes.

Pentium for proteins

Part of the problem is the comparison between protein chips and gene chips. To the untrained eye, they look identical—comprising tiny, flat surfaces of glass or semiconductor material with agents embedded within them for capturing molecules of RNA, DNA or proteins.

There the similarities end. Designing a protein chip entails the use of proteo-chemistry, materials science, surface chemistry and countless other disciplines which make the whole process far more complex than producing a gene chip. In short, a protein chip is to a gene chip what a supercomputer is to a calculator, say protein-chip companies. And though they share an underlying logic, they have quite different roles and levels of complexity. As such, protein chips will not necessarily replace but rather complement DNA microarrays, says Lawrence Cohen, the boss of Zyomyx.

Protein chips fall into two main categories—capture chips and interaction chips—which produce quite different results. As their name implies, capture chips catch and count all the proteins in a sample. By contrast, interaction chips look at the interplay between the proteins under scrutiny and other proteins, lipids and small molecules in a sample. A few start-up firms, including GeneScan, Packard Bioscience and NextGen Sciences, have been developing hybrid approaches that let their devices do both things in a single unit.

However, most protein-chip makers have focused on capture chips, which have the most in common with gene chips. Chips made by firms such as Archemix and Zyomyx are embedded with agents such as antibodies, antibody-mimics and aptamers (single strands of RNA or DNA which, like antibodies, can bind to target molecules with extraordinary affinity and specificity) to trap proteins and detect their quantities. In general, researchers using capture chips need to have a rough idea of which proteins they are looking for before they start.

Touchy by nature

Making such chips is easier said than done. The problem starts with overcoming the tendency for the proteins to become denatured by surface tension caused by contact with the chip. Thousands of crucial proteins can be denatured in just one experiment. So firms such as Zyomyx have put a great deal of effort into understanding the surface chemistry taking place at the solid/liquid interface within the chip, where the denaturing forces are at their strongest. Zyomyx, in particular, has locked in several key patents for such work.

The second, or “content”, problem concerns the limited number of capture agents available for such chips. The best agents are antibodies which, by their nature, bond tightly with proteins, and are very choosy about which proteins they attach to. Unfortunately, the number of known antibodies available is measured only in the thousands.

The real problem, says Michael Snyder, a molecular biologist at Yale University, is finding antibodies that are specific enough for the job. There is a wide variety of proteins, with the interesting ones that researchers want to study being outnumbered by common proteins by orders of magnitude. That makes it more important than ever to find antibodies that adhere to the right proteins. “Too many people have been focusing on making the arrays,” says Dr Snyder. “We're focusing on the hard part: making the proteins.”

With so much effort going into chip design, making arrays that can profile hundreds of proteins is no longer anything special. Indeed, array designers are now turning out chips that are capable of profiling thousands of proteins at a time. In fact, Dr Snyder's own group at Yale has created the first microchip capable of analysing all 5,800 proteins in the yeast proteome. That was two years ago. The Yale group is now attempting to do the same for the human proteome—largely by focusing on specific proteins produced by known genes.

Array designers are now turning out chips that are capable of profiling thousands of proteins at a time

Despite such efforts, however, the content problem is continuing to dog chipmakers. That, more than anything, has dampened the demand for protein chips markedly, says Steven Bodovitz of BioInsights. Because of this, firms such as PerkinElmer, Prolinx, Zeptosens and even Zyomyx have seen their plans for rolling out new protein chips delayed.

To begin solving the problem, chipmakers have banded with phage-display companies such as Cambridge Antibody Technology in Cambridge, England, and Dyax in Cambridge, Massachusetts, as well as Biosite Diagnostics. Such firms have libraries of thousands of antibodies, and can develop new antibodies that bind to proteins on a chip. Nevertheless, the process of antibody development remains slow and laborious, and it is still the main hurdle in the development of protein chips.

All the more interesting, then, that the uncontested leader in the capture-chip business, Ciphergen Biosystems of Fremont, California, has eschewed antibodies and circumvented the content problem. Ciphergen's protein chips combine elements of mass spectrometry with a capture chip. In effect, this allows researchers to take a crude sample and trap all the proteins in it. The mass spectrometry then helps to identify the proteins themselves. This way, Ciphergen's chips can compare samples from diseased patients with results from healthy patients, and thereby zero in on specific proteins found in the disease.

A case in point is Ciphergen's use of its protein chips to discover why AIDS does not progress in a small percentage of HIV-infected individuals. Finding the malevolent proteins this way takes a small fraction of the time it would take otherwise.

Interacting with life

Another type of array, known as the “interaction protein chip”, uses a wholly different set of parameters to measure how proteins react with other proteins and molecules. Chips from the likes of Biacore, Jerini in Berlin, Germany, and Protagen in Dortmund, Germany, promise the most functional data—perhaps the most coveted factor in proteomics. In general, such chips use immobilised proteins, peptides, lipids or small molecules to study the interaction of proteins in a sample. The answers they produce give insights into a protein's function, its interaction with other molecules and, equally important, how strongly it connects to the embedded molecules. All that can lead to invaluable information about therapeutic intervention or drug toxicity.

In general, notes Mr Bodovitz, interaction chips are best suited for high throughput analysis. Yet they have received the least attention from start-up firms and venture capitalists. That is probably due to the significant expertise required in areas as disparate as cloning, expressing and purifying proteins.

The leader in the field is the Swedish chip firm, Biacore, which has been producing affinity-based biosensors for more than a decade. The company's core technology is a technique called “surface plasmon resonance” (SPR), in which light is reflected from a gold-conducting film placed between the sample and the glass of the sensor chip. When molecules in the sample bind to the chip's surface, the concentration—and thus the refractive index—at the surface changes and an SPR response is detected. Plotting the response against time during the course of an interaction provides a quantitative measure of the progress of the interaction. According to Mr Bodovitz, SPR is the gold standard

The pay-off will be huge. Protein microarrays should be 10 to 100 times more useful than gene chips

for measuring the binding energy, affinity and interactions of a sample.

Other firms are adopting different approaches to the problem. Jerini, for instance, uses peptides to produce specialised chips with up to 10,000 features. Meanwhile, Phylos of Lexington, Massachusetts, has developed “combinatorial” methods and a unique tagging system to churn out proteins for doing protein-protein analysis on other makers' chips.

But for all the promise shown by the various approaches, researchers in the field have little experience with such high-throughput devices. Analysing the data, designing follow-up experiments, and uncovering their biological significance are likely to be trial-and-error processes for some time. Hence scientists' reluctance to embrace the protein-chip technology wholeheartedly.

Yet the pay-off is clear. A chip that can detect basic tell-tale signs of disease—as well as the disease mechanisms—would be useful in everything from target discovery to diagnostic services. In drug discovery, protein-capture chips can be used to compare the expression levels of proteins from healthy and diseased tissue. Interaction chips can be used to study a protein that is known to be involved with a certain disease and watch how it interacts with other proteins. Dr Cohen of Zyomyx suspects that the well-entrenched position that gene chips have established is preventing protein chips from getting a bigger foothold in the market.

A more promising area could be target validation, with protein chips being used to weed out unpromising drugs early in the development cycle, before much money is wasted. Interaction biochips can be used to determine the pathways with which a potential drug interacts. And capture chips can determine if such changes in expression are unique to the particular disease, or whether other proteins are being affected as well.

Ciphergen, for example, is marketing its chips for research into cancer and other diseases, where they can be used to develop early indicators for such conditions. The company also sells its chips to pharmaceutical firms for use in clinical proteomics. Other manufacturers, such as Biosite, are focusing on clinical diagnostics, where protein chips can help doctors monitor the effects of a particular treatment. Biosite's engineers expect protein chips to be used in everything from detecting the presence of illicit drugs in the body to whether a patient has had a minor, undetected heart attack.

In the more distant future, protein chips can be expected to play a key role in “personal medicine”, allowing drugs with low general efficacy to be used by people whose protein expression suggests they are more suited for such medication. That could help to launch a whole new market for drugs that may have been deemed ineffective, or even rejected, by the regulatory authorities.

Uphill all the way

In the meantime, protein-chip makers face an uphill battle. Part of the problem is the sheer complexity of the technology. Then there is the difficulty that researchers have in understanding the difference between gene chips and protein chips. Even those who appreciate the protein chip's advantages—with its ability to provide a more thorough look at the product of genetic expression—generally balk at the protein chip's $750-1,000 price.

Another hurdle that protein-chip makers have to overcome is that, as designers cram ever more antibodies and capture agents on their arrays, the devices are in danger of becoming a bit like supercomputers used for word-processing. Most researchers will stick with established DNA methods and continue to rely on low-throughput techniques to study proteins, says Monika Green of Cambridge Consultants in Britain. “There's a lot of expectation based on optimistic thinking and extrapolation from DNA chips,” says Ms Green. “I think most customers will go for the simpler chips. The requirements will be reproducibility, reliability and control rather than density.”

Yet things could change—and change quickly. Over the past year, for instance, several chipmakers have had to delay the release of their latest protein arrays. As more products come to market in 2003, the marketing blitz could help to build momentum for protein chips. And by then, the designers and the users may have learned how to manage the chips' inherent complexity better. Once they do, the pay-off will be huge. Protein microarrays should be 10 to 100 times more useful than gene chips, reckons Dr Snyder at Yale. “But this stuff is not trivial,” he adds. “It's the difference between figuring out how to get to the grocery store and how to get from New York to California.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

THE INTERNET

The revenge of geography

Mar 13th 2003
From The Economist print edition

It was naive to imagine that the global reach of the internet would make geography irrelevant. Wireline and wireless technologies have bound the virtual and physical worlds closer than ever

IN THE early days of the internet boom, there was much talk of the “death of distance”. The emergence of a global digital network, it seemed, would put an end to mundane physical or geographical constraints. There was some truth in this. E-mail made it cheap and easy to stay in constant touch with people, whether they lived around the corner or on the other side of the globe. Companies could communicate with customers and employees no matter where they were. And like-minded individuals who shared a common interest could get together online from all round the world.

Actually, geography is far from dead. Although it is often helpful to think of the internet as a parallel digital universe, or an omnipresent “cloud”, its users live in the real world where limitations of geography still apply. And these limitations extend online. Finding information relevant to a particular place, or the location associated with a specific piece of information, is not always easy. This has caused a surge of innovation, as new technologies have developed to link places on the internet with places in the real world—stitching together the supposedly separate virtual and physical worlds.

The first step in this process was to map the internet's physical infrastructure, and in particular the locations of the end-points on its edges, where users are connected. A number of companies, including Quova, Digital Envoy, NetGeo and InfoSplit, offer “geolocation services” that enable websites to determine the physical locations of individual users. This is done using a database that links internet protocol (IP) addresses of users' computers to specific countries, cities or even postcodes. Groups of IP addresses are assigned to particular universities, companies or other organisations, which often have known locations; providers of internet access allocate specific IP addresses to customers in particular regions. When you visit a website that uses geolocation technology, your IP address is relayed to the geolocation provider's server. It looks up where you are and passes the information back to the website, which can then modify its content accordingly.

Once your location is known, existing demographic databases, which have been honed over the years to reveal what kinds of people live where, can be brought into play. Targeted advertising is the most obvious application for geolocation, but it has many other uses.

It can help, for example, to determine the right language in which to present a multilingual website. Or e-commerce vendors and auction houses can use geolocation to prevent the sale of goods that are illegal in certain countries. Online casinos can stop users from countries where online gambling has been outlawed from gaining access. Rights-management policies for music or video broadcasts, which tend to be based on geographical markets, can also be enforced. The pharmaceutical and financial-services industries, both of which are subject to strict national regulation, can be confident that, when offering goods and services for sale online, they are staying within the law. So much for the borderless internet and the death of distance.

Geolocation finds the physical location corresponding to an internet address, but it can also be used to do the reverse: to find the internet-access point

While the notion of war-chalking

nearest to a particular location. The necessity of doing this arises from the growing popularity of 802.11b or Wi-Fi technology, which provides wireless internet access to suitably equipped laptops within 100 metres or so of a small base-station, or “hotspot”. Many of the thousands of hotspots around the world are deliberately made available to anybody who happens to be passing. Others are run by operators who charge a fee for access in hotels, airports and other places. One operator, T-Mobile, is installing Wi-Fi base-stations in thousands of Starbucks coffee shops in several countries.

has gained much attention, hardly anybody actually does it

But how can you determine if Wi-Fi coverage is available in a particular area—or, if not, the location of the nearest hotspot? A number of websites, such as wifinder.com and 80211hotspots.com, have sprung up that act as global directories of Wi-Fi base-stations. Type in a postcode or street address, and you can see where they are. In some cities, Wi-Fi enthusiasts have produced maps showing hotspot locations.

This has been taken to its logical extreme by researchers at the University of Kansas (at www.ittc.ku.edu/wlan). First, they drive around a particular neighbourhood with a laptop, looking for Wi-Fi coverage and monitoring the signal's strength. Next, this information is combined with aerial photography of the neighbourhood, with colour-coding to show signal strength. The result is a map showing how strongly the internet obtrudes into the real world.

A low-tech approach that achieves the same end is the concept of “war chalking”, a term coined by Matt Jones, a British designer. He has proposed a set of symbols that can be scribbled on the pavement using chalk to signal the presence of a nearby hotspot. Again, the idea is to show where the parallel worlds of reality and the internet touch. While the notion of war-chalking has gained much attention in the media, however, hardly anybody actually does it.

Your nearest web page

Mapping internet infrastructure is just a start. Things get more interesting when you begin to establish links between real places and virtual information. Imagine that you have a huge pile of documents. Keyword searching is one way to find what you are looking for. But for geographical searches—say, finding all the pages relevant to a particular city—keywords are too blunt an instrument.

The ideal solution would be to embed a “geotag” or “geocode” in pages containing geographical content, to make geographical queries possible. A number of methods have been put forward to add such geotags to pages automatically, based on analysis of their content. Last year Google, the leading internet search engine, held a programming competition in which participants were given a chunk of the Google archive and index to play with. The winner, Dan Egnor, wrote software that added geotags to pages based on the analysis of postcode and address information, so that search results could be returned in order of geographical proximity to a particular point.

Another approach is taken by MetaCarta, a company based in Vienna, Virginia, and financed by In-Q-Tel, the venture-capital arm of the nearby Central Intelligence Agency. Its “geo-parser” software examines documents and looks for geographical references, including country, city and state names, postcodes, internet addresses, and the names of famous landmarks. These are looked up in a gazetteer, a place-name dictionary with over 10m entries, which knows, for example, that the Statue of Liberty is in New York. The results are then combined using natural-language processing rules derived from a corpus of 50m documents. If the word “Paris” appears near the word “France”, for example, then the document is more likely to be about the Paris in France than the Paris in Texas. Using a combination of many such rules, the system determines the document's corresponding location, and applies a geotag to it. Around 80% of text documents contain geographical references, says MetaCarta's Randy Ridley.

Geotagged documents can be used in a number of ways. One approach is simply to plot a selection of documents on a map. MetaCarta's clients include intelligence agencies, and the potential for such a system in anti-terrorism is obvious. Documents from a computer confiscated from a suspected terrorist can be analysed and plotted on a map, to see where they cluster. The same technology also has applications in local law enforcement, insurance and the oil industry, all of which generate large amounts of place-specific information. And it can be applied to web pages, once they have been geotagged. Type in a search term, and you can then see how the resulting pages are distributed geographically.

A different approach to the generation of geotags is taken by Junyan Ding and Luis Gravano of Columbia University in New York. Their "Geosearch" search engine determines the geographical scope of a page by looking at the locations of pages that link to it, as well as its content. The *New York Times*, for example, is a newspaper that covers global issues, and is thus relevant to the whole world; this is reflected in the fact that websites all over the world link to the *New York Times*. Websites relevant to a particular state, city or region, on the other hand, are less likely to have links from pages outside that locality. The researchers specifically looked at links to target pages from American educational sites—those with internet addresses ending ".edu"—since their location can usually be determined precisely.

However, there is a limit to how far such retrospective geotagging techniques can go, notes Martin Dodge, an analyst of cybergeography at University College London, who is co-author of the "Atlas of Cyberspace". The problem, he points out, is that whereas most countries have some form of postal code, there is no global standard. But the usefulness of a search engine able to classify results by geographical proximity to a specific place is clear. You could use it to find a nearby plumber, or a hotel near a landmark you plan to visit. The best approach would be to have a global standard for geotags, and to get the authors of web pages to include them automatically.

Several such standards have been proposed. The OpenGIS consortium, for example, is made up of 230 companies, including the world's main hardware and software vendors, industrial giants, and specialists in geographical information systems (GIS), all of which are backing a common standard to "geo-enable" the web and wireless devices. The idea is to provide a *lingua franca*, so that geographically tagged data of all kinds, from satellite photos to customer lists, can be easily combined and analysed.

Another initiative is GeoWeb, part of the Digital Earth research project at SRI, a non-profit research institute in Menlo Park, California. Its aim is to make it as easy as possible to find information on the web associated with a specific location, but in a way that can be scaled up indefinitely as more and more information is geotagged. It does this by sitting on top of the internet's domain-name system, a hierarchical look-up arrangement that translates domain names (such as economist.com) into internet addresses (such as 170.224.17.153). Similarly, GeoWeb is a hierarchical look-up system that maps latitude and longitude co-ordinates on to relevant pages that can also be filtered by other criteria. Co-ordinates can be typed into a browser as a special kind of internet address, ending in ".geo". However, SRI's proposal for a special .geo domain has yet to be approved.

Web of neighbours

In the meantime, a number of websites are providing geographically specific look-ups and searches. Geourl.org is a website that maps locations on to web addresses, so that websites "near" a particular place can easily be found. So far, it is mainly being used by web-loggers, or "bloggers" (people who maintain diary-style personal websites, or "blogs") to anchor their blogs in the real world, and identify other bloggers nearby. Blogmapper.com goes further, providing the tools to create "geoblogs" that are organised by geography, rather than by date.

Upmystreet.com is a clever British website which, given a postcode, can tell you about local house prices, crime rates, schools, tradesmen, public transport and government services. Discussion boards were recently added to the site, with a search function that makes it possible to see discussions taking place near a given location. The site even calculates how "far away" each discussion is. The result might be termed "geochat".

Links between web pages and particular locations are central to "geocaching", a high-tech form of orienteering that involves using a global-positioning system (GPS) handset to find a hidden cache of items at a location specified on a web page. The custom is to take one item (a toy dinosaur, say) from the cache and replace it with another, and then return to the web page corresponding to the geocache and leave a message to announce that you have found it. Geocaching.com calls this "the sport where you are the search engine"; you access the internet, and then you find the corresponding physical location.

The result is a powerful sense of the internet overlaying the real world; or, conversely, a sense that the world is a three-dimensional aspect of the internet.

An even more dramatic example of digital content that is relevant only in a specific location is geoencryption, an idea championed by Dorothy Denning of Georgetown University in a research paper published in 1996, subtitled “Grounding cyberspace for better security”. Geoencryption encodes a stream of data in such a way that it is only intelligible to somebody in a specific location; the output from a GPS device is used to unscramble the data. This idea could be used, for example, to distribute movies in such a way that they can only be unscrambled by people in particular places—in other words, your location is your password. GeoCodex, a start-up based in Arlington, Virginia, is now commercialising this idea. As well as safeguarding entertainment broadcasts, the technology has military applications, says Dr Denning.

The greatest potential for linking the virtual and physical worlds, however, is on mobile devices that can access the corresponding region of cyberspace from anywhere in real space. Using your location as a search term, you can then reach directly from one world to the other. The mobile-telecoms industry calls this “location-based services”. So far, the services available in most countries are not particularly exciting. Provided everything works as planned, which is not always the case, you will be able to use a mobile phone to locate the nearest petrol station, cash dispenser or Italian restaurant.

Much of the time, however, the usefulness of such services is limited by the lack of an accurate positioning system. There are various ways to determine the position of a mobile handset. The crudest is simply to look at which cell of the cellular network it is in. That narrows down the location to within a few hundred metres, at least within cities, where cells are generally quite small. Some improvement is possible by triangulation—determining the handset's distance from base-stations in multiple cells, by measuring the signal's strength. Another approach is to ask the user to enter a postcode or phone number corresponding to his location, but that is clunky.

On the face of it, the ideal solution would be a GPS receiver built into the handset. But GPS reception in cities with tall buildings can be patchy. Hence the hybrid approach being taken by Qualcomm, an American wireless firm, with its “gpsOne” technology, which combines a GPS receiver with ranging information from local base-stations. The result is accurate enough to determine the latitude and longitude of a mobile handset, and even its altitude, to within a few metres.

Where are your friends?

This kind of accuracy changes the game completely. Handsets equipped with gpsOne, over 10m of which are now in use worldwide, in countries including South Korea, Japan and America, can be used to send street maps and detailed directions to pedestrians, taking into account the possibility that they might be on a walkway or a footbridge above a road. According to Tom Wrappe of SnapTrack, Qualcomm's location-based services subsidiary, “friend finder” services are also popular in Japan. Registered users of such services can specify “geo-fencing” limits and be alerted when somebody they know comes into range.

Handsets also allow users to “geomark” a location, and then send details to other people, who can then use their handsets' positioning capabilities to go to exactly the spot. This has social uses (such as marking a picnic place or a meeting place at a music festival), but it may also be used in business. A manager on, say, a construction site can send a message to indicate where a consignment of building materials ought to be delivered. Built-in digital cameras are also becoming increasingly common in Japanese and Korean handsets, and they can send geomarked photographs, too. There are also some rather more culturally specific functions: one Japanese service enables users to locate haunted places; another sends sarcastic messages if you stay too late in the office on Friday evening.

Unlike internet-based systems, however, wireless networks are tightly controlled by their operators, so there is much less scope for bottom-up innovation by users. The internet is an open platform, but it lacks ubiquitous wireless coverage and proper positioning technology. Only when openness, ubiquity and GPS-grade positioning are available in the same handset will it be possible to realise the true potential of location-based services. This may happen fairly soon, as Java-enabled handsets proliferate, and other internet technologies cross over from computers to phones. In the meantime, a few examples show the kind of things that might be possible.

A mobile device linking the real and virtual worlds could change your perception of your surroundings

Many interesting possibilities are opened up by “user-generated location-specific content”—a fancy phrase for digital wireless graffiti. An early example of this, says John Cunningham of SnapTrack, is a Japanese restaurant-review service that allows reviews contributed by previous customers to be called up by somebody outside the restaurant who is wondering whether to eat there. In effect, previous customers leave their comments floating in the air around the restaurant, where they can be read by anybody with the right handset.

This concept has been generalised by a number of wireless-software firms into the idea of digital graffiti—messages that can be posted using a handset, and which correspond to a particular location. Generally, there are two kinds of graffiti supported by such systems: public (which can be read by anybody) and private (which can be read only by associates of the person who posted the message). Just because this kind of thing is technologically possible, however, does not mean that anybody is actually doing it yet. There are also versions of this idea that work within Wi-Fi hotspots, such as the GeoNotes system devised by Per Persson of the Swedish Institute of Computer Science. But Wi-Fi is best suited to laptops: it uses up too much power for use in handheld computers or mobile phones—and laptops are hardly ideal things to lug around the streets.

Ultimately, the logical conclusion of wireless graffiti systems would be the ability to attach information to any object or place on earth with an accuracy of a metre or less. This has been dubbed the “WorldBoard” by Jim Spohrer, a researcher at IBM's Almaden Research Centre in San Jose, California. He had the idea while hiking, when he saw an unusual sort of plant, and wished he could look it up on the internet; he then realised that other passers-by might also want to know the same thing, and wished he could somehow stick the information on to the plant, like a virtual Post-It note. “A WorldBoard is in some sense bigger than the world wide web,” he says, “because it allows cyberspace (the digital world of bits) to overlay and register with real space (the physical world of atoms).”

As well as making it possible to scribble virtually anywhere, linking the real and virtual worlds through mobile devices could also change users' perception of their surroundings, says Jason Devitt of Vindigo, a company based in New York that provides location-based services on both handheld computers and mobile phones. “You should be able to stand on a street corner and find out everything that's going on around you,” he says. “In the grandest sense, I think these devices are capable of extending your senses.” Instead of just looking along the street at what is visible, he suggests, “it should be possible to know and see everything that people make available to you.”

Several applications spring to mind. While wandering through an attractive neighbourhood, you might ask your mobile device about apartments for rent nearby, the crime rate, local amenities, and so on. After all, websites such as Upmystreet.com have put together most of this information already. This kind of thing, says Mr Devitt, “could change the way people relate to each other and their environment.” If people start using mobile devices to find shops or restaurants, then prime real-estate on the high street would no longer be so valuable. Having an eye-catching sign might matter less than being listed in the right wireless databases and yellow-pages services.

The potential for mobile devices to transform the urban environment is of particular interest to Anthony Townsend, an urban planner at the Taub Urban Research Centre at New York University. Good location-based services, he believes, will be integrated with architecture and urban design. However, the technologies to determine location, extract relevant information and deliver it via a wireless connection are only just starting to come together, and so far in rather primitive ways. Mr Townsend draws an unfavourable comparison with the early days of the web.

Even so, devising a website “was a relatively easy design challenge compared with this.” And whereas web designers could build on established metaphors of human-computer interaction (HCI)—windows, icons, and so on—designers of location-based services face a more complex challenge. The HCI people are good at the human-machine interface, he points out, and the architects at the human-environment interface. “But nobody is good at human-machine-environment interfaces.” The best examples at the moment are in-car navigation systems, he notes, and they have taken 20 years to develop.

Undaunted, Mr Townsend is acting as an adviser, together with a group of academics from the Massachusetts Institute of Technology, to a South Korean project to build a “digital media city” on the outskirts of Seoul. South Korea is one of the world's most advanced countries when it comes to mobile phones, and the world leader in broadband adoption. An important aspect of the project is to try to imagine what kind of location-based services (and other wireless services) will be appropriate in a high-tech city 20 years from now. “It has given me an appreciation for how slowly this is going to unfold, and how slowly killer applications will evolve,” says Mr Townsend.

It is thus early days for technologies that link the physical and virtual worlds. Location-finding technology must become more ubiquitous, and common standards are needed, if the “real-world” internet is not to fragment into multiple separate overlays on reality. What is striking, however, is that, even in the absence of mature technologies or standards, an enormous amount of innovation, experimentation and reinvention is going on—exactly the opposite of what you would expect to be happening if the internet was really just a placeless cloud. Geography matters online after all; it has certainly not been killed by the internet. In fact, the two seem to be getting along rather well.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

CASE HISTORY

Beyond the nanohype

Mar 13th 2003
From The Economist print edition

Nanotechnology is still buoyed more by hype than actual pay-off. Two big issues need to be addressed before nanotech—like biotech a couple of decades before—can really begin to earn its keep

NANOTECHNOLOGY has grabbed the baton in the scientific relay that extends from atomic physics to biotechnology. Billions of dollars, euros, yen and yuan are being spent on it. It played roles in such movies as “Spiderman” and “Minority Report”, and it is the villain in Michael Crichton's latest bestselling book, “Prey”. It is sweeping the physical and life sciences, and even making headway in political and social spheres, too. Not bad for a discipline in which you still cannot get a degree.

Why all the hype? In nanotechnology, some scientists see nothing less than another state of matter—adding “surface” to the existing list of solid, liquid, gas and plasma. The potential to move atoms at will, thus enhancing and augmenting existing structures and even creating new ones, is unprecedented. Impressed by stories about nanotechnology's $1 trillion market potential, governments have started doling out money for nanoresearch in a big way. Chipmakers have also been attracted to it, seeing in nanotechnology a set of tools that will help them postpone the end of Moore's Law—or the emergence of Moore's Second Law, which threatens to drive the cost of chipmaking plants up to $10 billion by 2010.

Despite all this, scientists cannot agree on what exactly nanotech is. Of course, nano means one-billionth; one nanometre (1nm) is one-billionth of a metre (a DNA molecule measures 2.5nm across). The American government's National Nanotechnology Initiative defines nanotechnology as anything involving structures less than 100nm in size.

But debate rages over whether such structures count as nanotech only if they are deliberately created by humans. Some include feats of miniaturisation, such as the interconnections on microprocessors or memory chips, which are now being made with features 130nm wide. However, true believers maintain that nanotechnology is the process of creating new structures using the ability to move atoms. They credit a talk entitled “There's Plenty of Room at the Bottom” given by a legendary physicist, Richard Feynman, in 1959 as the inspiration for nanotechnology. For decades afterwards, though, researchers could do little more than theorise along with Feynman.

That changed in 1980, when Gerd Binnig and Heinrich Rohrer at IBM's Zurich Research Laboratory filed a patent for a “scanning tunnelling microscope”, which came into use in 1981 and garnered the pair of researchers a Nobel prize in 1986. Four years later, Dr Binnig was back at it, inventing the “atomic force microscope”. These two devices let researchers observe things that had been impossible before—such as the entire atomic structures of molecules. In the case of the atomic force microscope, scientists could actually begin to manipulate atoms directly. In short, these microscopes made nanotechnology possible.

Small things that count

Breakthroughs followed fast. In a series of experiments after 1985, two scientists at Rice University in Texas, Richard Smalley (see article) and Robert Curl, along with Sir Harry Kroto of the University of Sussex, in England, discovered a new form of carbon. This was dubbed carbon-60, but quickly became known as the buckyball, because its structure resembles the geodesic dome invented by Richard Buckminster Fuller.

Buckyballs gave scientists insight into how atoms could be structured, and hinted at elongated forms that generated intense scientific interest. Shortly thereafter, Eric Drexler wrote “Engines of Creation”, in which he posited miniature self-assembling machines and other fantastic notions. This book popularised the use of the word nanotechnology. It failed, however, to account for the effects of quantum mechanics—the body of physics that explains why very small things behave differently from bigger ones.

Dr Drexler's book certainly captured the public's imagination. But scientists continued to talk about “fullerenes” (again, from Buckminster Fuller) and to argue about the shape of hypothetical “buckytubes”. In 1988, three chemists, Paul Alivisatos, Moungi Bawendi and Michael Steigerwald, working under Louis Brus at AT&T's Bell Labs in New Jersey, showed that well-known materials, such as gold, emitted light differently at the atomic level. That quantum-effect experiment is now seen as a landmark in the development of nanotechnology. It proved unequivocally that atoms behave differently from the way that classical physics would predict. But the researchers did not at the time think of it as nanotechnology.

Then came nanotech's eureka moment. In 1990, Don Eigler, a researcher at IBM's Almaden Research Laboratory in San Jose, California, formed the IBM logo out of xenon atoms. A parlour trick, good for nothing practical. But it galvanised other scientists, who had never before seen atoms manipulated so completely.

Dr Eigler's breakthrough came as part of a wave of discoveries crucial to the development, and application, of nanotechnology. Later in 1990, two physicists, Wolfgang Kratschmer of the Max Planck Institute in Germany and Donald Huffman of the University of Arizona, worked out how to make buckyballs in large quantities. That allowed scientists to study them properly for the first time.

Then, in 1993, came the discovery of “carbon nanotubes”, following research done independently by Sumio Iijima of NEC in Japan and Don Bethune at IBM Almaden. In fact, Dr Iijima had found multi-walled carbon nanotubes as early as 1991. Indeed, during the debate over the shape of buckytubes, many scientists had unknowingly seen carbon nanotubes. The American patent for carbon nanotubes was actually filed in 1984 by Howard Tennent, a chemist spending his retirement helping a small Massachusetts company called Hyperion Catalysis, which was trying to find ways to use carbon to store energy.

In those days, notes Dr Tennent, scientists measured very small things in angstroms (or tenths of a nanometre), and his patent refers to his structure as a “fibril”. But his fibrils had multiple walls, whereas Dr Iijima and Dr Bethune isolated single-walled carbon nanotubes, which were stronger and also superconductive. Still, fibrils have applications, and Hyperion can produce them by the tonne. By comparison, carbon nanotubes merely have potential, and are produced by the gram. Even so, the name nanotube (rather than fibril) has caught on.

Where's the money?

Today, nanotubes have been joined by nanocrystals, nanowires, nanorods and other nanoforms. Research papers proliferate. But nanoresearch is further on than the business of nanotechnology. Commercial interest is intense, even though success remains elusive.

Although Hyperion Catalysis was arguably the world's first nanotech firm, Nanophase of Romeoville, Illinois, was probably the first company founded explicitly to commercialise a nano-substance—and certainly the first to survive long enough to go public (in 1997). Started in 1989 to exploit research done by Richard Siegel, then at Argonne National Laboratory, outside Chicago, and Horst Hahn of the University of Saarland in Saarbrücken, Germany, the company developed substrates that eventually became useful in cosmetic applications, particularly sunscreen. But it took Nanophase years to figure out how to manufacture its product cheaply—a challenge that dogs all of today's crop of nanotech start-ups. Keith Crandell, one of the venture capitalists who helped build Nanophase, confesses that funding the company was an act of youthful naivety.

Still, one can buy nano-enhanced sunscreens, and even self-cleaning windows that use similar nano-engineering to keep dirt from sticking to glass. Also for sale are trousers that use nano-hooks to attach small fibres to cotton, letting it repel stains more effectively than was previously possible. Some vehicles come with body parts made stronger, lighter and cheaper through the use of nanocomposites. Some tennis balls bounce higher for longer, thanks to a special nanocoating. Then there are “quantum dots”, nanodevices that are generating a lot of buzz in biology and computing.

It seems inevitable that nanotechnology will continue to spread into materials, much as plastics re-formed business after business in the second half of the 20th century. What is needed is time to work out how to do the basic assembly of atoms into stable structures, and then to learn how to do that continuously on a predictable and profitable basis. For now, the researchers are in the process of turning things over to the engineers. It will be several years yet before they, in turn, hand the prototypes and know-how over to the manufacturing foremen and the marketers.

Purists in the field see the applications that have been considered so far as “passive” nanotechnology, because they do only one thing. They would like to see greater focus in future on “active” nanotechnology—ie, on nanodevices that interact with one another. They believe that not until components actively interact will any of the promised breakthroughs accrue, in molecular electronics, genetic engineering, bio-sensors and other figments of the nano-optimists' imagination.

Even then there are two big obstacles to overcome. The first is coming up with an interface between living entities and electronic devices—ie, between carbon and silicon. It does no good to have a fuel cell made of carbon nanotubes if it cannot communicate when it is about to run out of fuel. While scientists at IBM, Hewlett-Packard and elsewhere race to release their latest atomic transistor or nanostorage device, they have yet to work out how to integrate such components. At Hewlett-Packard, Stan Williams and Phil Kuekes recall hearing as boys that soon even toasters would run on nuclear power. Despite such false dawns, they still think nanotechnology will be everywhere within 20 years. But until the integration issue is solved, nanocomputing will be as likely as nuclear-powered kitchen appliances.

Solving the integration issue will create another problem: how, in fact, to design and build nanodevices. The unpredictable behaviour of nanoscale objects means that engineers will not know how to make nanomachines until they actually start building them. Such a conundrum could take years to solve—and even then, it will be by trial and error and a lot of luck.

Quarter of a century later

A cautionary tale comes from Feynman's talk. At the end of it, he offered two $1,000 prizes for creating some atomic structures. One, for a tiny motor, was solved quickly, though conventionally, using a toothpick, a lathe and a microscope. The other was to prove that the “Encyclopedia Britannica” could fit on the head of a pin—by writing a page 1/25,000th of its normal size. That was not achieved until 1985 (using the first page of “A Tale of Two Cities”).

George Whitesides, a prolific Harvard chemist, reckons that nanotechnology is now about halfway through the list of discoveries needed for the field to reach maturity. He believes that it will develop much as biotechnology has—through intensive research and experimentation that yield totally new ways of doing things. Perhaps, one day, there really will be tiny, self-propelling structures that seek out and destroy cancer cells inside the human body. In time, nanotechnology could, indeed, change all of materials science, all of computing and much of biology. A transformation of that scope could generate serious concerns over nano-ethics. It is unlikely, though, that anything would cause the nanotechnology baton to drop. We are watching a classic technological revolution unfold.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com PRINT EDITION TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

CHEMICAL ENGINEERING

Bugs as catalysts

Mar 13th 2003
From The Economist print edition

Industry is having a hard time finding new catalysts to supercharge many of today's complex reactions. So researchers are scouring the world for bacteria and fungi that can do the job biologically

IN MANY biological and industrial processes, reactions must proceed rapidly or they are useless. That is why catalysts are so important. These agents hasten reactions, without themselves being consumed by them. This neat trick also makes them very cost-effective. Modern industrial catalysis began in Germany in 1909, when Fritz Haber managed to synthesise ammonia from nitrogen and hydrogen, using iron as a catalyst. Today's chemical and oil industries depend mightily on a wide variety of synthetic catalysts to make fuels, clothing, consumer products and, perhaps most familiar of all, to clean up the noxious fumes from car exhausts.

The problem with conventional catalysts is that, although they work well much of time, the process of getting from compound A to compound B is becoming increasingly complex and hard to do using standard chemistry. Chemical synthesis is a lengthy process with many steps. Those steps require nasty chemicals and solvents, generate a lot of waste, consume energy and chip away at the product.

Catalysis can also be based on enzymes—the proteins that accelerate all of life's reactions, from digesting food to making DNA. In the 1850s, Louis Pasteur demonstrated that making alcohol from sugar is promoted by entities he called “ferments”, later named enzymes after the Greek for “in yeast”. Used since antiquity in brewing beer and making cheese, enzymes boast impressive advantages: they operate at room temperature, they prefer water to some fancy solvent and they generate few bothersome by-products. Used individually or as part of whole cells, these “bio” catalysts often far exceed the efficiency of synthetic catalysts, owing to their ability to distinguish subtleties of shape and location.

Global sales of enzymes for use in detergents, animal feed and textiles amounted to $1.8 billion in 2001, according to Sandra Erb of Technology Catalysts International (TCI) in Falls Church, Virginia. By comparison, sales in the “other market” for biocatalysts, which includes pharmaceuticals, industrial chemicals and speciality products such as flavours, were a modest $130m. Now, regulatory pressures, and global initiatives towards sustainable development, may give this other market a boost.

Smart enzymes

Biocatalysis has already replaced chemistry in several high-volume applications. For example, high-fructose corn syrup (the natural sweetener in soft drinks) is produced on a multi-tonne scale, using two enzymes to convert maize-starch to glucose and then to fructose. No conventional alternative to the process exists. Similarly, DSM, a Dutch chemical firm, and Tosoh in Japan have developed a biocatalytic route for producing aspartame, a high-intensity sweetener. An enzyme correctly selects the desired structure from among four possible variants.

The ability of enzymes to discriminate to that extent makes them extremely attractive to the pharmaceutical industry. Unlike the enzymes used in laundry detergents, which are designed to interact with generic soil—eg, blood and egg—making medicines requires very choosy catalysts. Laboratory reactions often produce compounds in a mix of mirror-image forms that react differently in the body. Enzymes do a superb job of telling the forms apart, which is important since one is commonly inactive or, worse, may even be harmful.

Many companies use biocatalysts internally, as one step in a multi-step process, rather than selling them in the marketplace. Two years ago, Degussa, a German chemical firm that started working with enzyme

catalysts 20 years ago, launched an $18m programme called Project House Biotechnology that will do “biocatalysis and nothing else” in developing compounds for use in making drugs, cosmetics and food.

Better ways of making plastics also rely on biocatalytic methods, though finding a process that is energetically sustainable can be a challenge. Cargill Dow, a company based in Minnesota that makes polymers for textiles and packaging, using vegetation rather than petroleum, has produced a biodegradeable plastic called polylactic acid on a commercial scale. To do this, it uses a whole-cell biocatalyst system to make lactic acid by fermenting corn sugar. Incorporating the biocatalytic step avoids complications that have hampered production in the past, and requires substantially less fossil-fuel resources than similar plastics. A maize-based fermentation process developed by DuPont and Genencor combines DNA from three different organisms to create a non-petroleum-based route to 1,3-propandiol, a plastic used to make textile fibres.

Metabolix of Cambridge, Massachusetts, employs microbial “biofactories” to generate a different kind of bioplastic called polyhydroxyalkanoate (PHA) by feeding sugar to bacteria. Many microorganisms produce PHAs naturally, but not all that fast or efficiently. Metabolix genetically engineers the microbes' metabolic programme to obtain plastic in greater amounts and differing compositions. Ranging from tough to squishy, the materials maintain their integrity in tap water but become biodegradeable in soil and other watery environments. The current process is dramatically improved from early attempts to commercialise PHAs, says James Barber, the firm's chief executive. At well under $2 a kilo, PHAs are a plausible replacement for plastics used in adhesives and coatings.

Search for fresh sources

Although several thousand enzymes are known, the actual number that industry has to work with is not that large. Historically, enzymes have suffered from being in limited supply, which has constrained the transformations that can be performed. Sometimes, the enzymes themselves have been either too selective or not selective enough; or they have proved unstable outside a narrow range of conditions. Poor stability leads to decreased efficiency, which results in longer processing times, more replacement of catalysts, reduced yields and higher costs.

Happily, most of microbial life is virgin territory. Diversa of San Diego, California, and a handful of other companies have made a business out of combing the world to find novel genomes as sources for biocatalysts—harvesting robust samples near deep-sea thermal vents, or in caustic-soda lakes in Kenya. Because 99% of microbes cannot be grown outside their own niche, the bugs' DNA is extracted and put into more lab-friendly organisms to look for desired activity. This approach is beginning to bear fruit. Diversa's Mark Burk reckons that the firm has discovered roughly 200 nitrolases (enzymes that act as specialised clipping shears) from samples collected around the world, yielding several biocatalysts that halve the number of steps needed to make a building-block of Lipitor, a cholesterol-lowering drug.

Bioprospecting in extreme environments can turn up novel micro-organisms for use as potential biocatalysts. But given that a pinch of typical soil contains around 100m microbes, enormous diversity can be found even in one's own back garden, says Bob Holt of Avecia, a manufacturer of specialty chemicals based in Britain. Avecia has a collection of 6,000 organisms—ie, bacteria and fungi—and produces building-blocks for drugs in large quantities, using both biocatalytic methods and conventional chemistry.

Although several thousand enzymes are known, the number industry has to work with is not that large

Finding the micro-organism or enzyme is really only the starting-point, says Dr Holt. Mixed with chemicals, biocatalysts tend to curl up and die. The key is to put together a process that will allow an enzyme or micro-organism to survive in common reaction conditions. Nor is a biocatalyst always the best available technology: competing chemical technology must always be evaluated alongside it.

Screening (ie, distinguishing useful catalysts from uninteresting ones, or the best of a good crop) is a critical part of discovery. According to Jean-Louis Reymond of the University of Bern, Switzerland, the challenge is to screen for the property you really want and not for something else. Many screens fail because they rely on highly reactive substances that respond equally well to strong and weak catalysts. Using such screens is akin to qualifying team members for an assault on Everest by getting them to step on a chair. Dr Reymond and his colleagues have developed chemical tests—including one patented jointly with Protéus in Nimes, France—for a variety of desirable properties that generate a colour-coded “fingerprint” of activity that is specific for each enzyme, and may prove useful in enzyme discovery.

Mimicking evolution

What nature cannot deliver, technology can help along. Genetic techniques developed in recent years make it possible to mimic in a laboratory the basic steps of Darwinian evolution—by tinkering with an enzyme's genetic structure so as to optimise certain desired reactions. This “directed evolution” induces mutations in genes and selects for the best among them over several rounds, generating multitudes of new variants in a fraction of the time that nature would require.

An extension of directed evolution culls several different beneficial mutations and assembles them together in the same gene, with the aim of obtaining an additive or synergistic effect. The person who developed this “DNA shuffling” technology, Willem Stemmer of Maxygen in Redwood City, California, likens it to classical breeding of plants and animals, only for molecules, without having to go through the entire sexual cycle.

How much easier it would be if one could create ideal catalysts from scratch. Unfortunately, says Donald Hilvert, an organic chemist at the Swiss Federal Institute of Technology (ETH) in Zurich, enzymes are like car engines: easy to dismantle, but hard to build. Very little is known about how an enzyme's structure contributes to its function or how it interacts with other molecules. Dr Hilvert's research focuses on just such questions: how enzymes work, how to mimic them and how to adapt them for tasks that nature never thought of.

The immune system's ability to generate a wide range of molecules on demand, for example, can be exploited to create enzyme-like molecules called “catalytic antibodies”. However, these artificial enzymes are not as efficient as their naturally occurring counterparts, a feature that has limited their application. Dr Hilvert is striving to remedy this with the help of directed evolution. He is also attaching bits to enzymes that are not genetically encoded. The hope is that these add-ons may confer new catalytic activities or alter the properties of proteins so as to make them therapeutically interesting.

The patent situation for biocatalysis is a nightmare, notes Ms Erb. Many techniques for altering the genetic code of an enzyme are covered by patents, which means that a company that bioengineers the enzyme must be careful not to use patented techniques. The question of who owns the enzyme if a patented technique is used without permission has led to a number of companies licensing each other's proprietary technologies.

In the end, whether biocatalysis succeeds or not comes down to market economics. “Much is possible,” says Bernard Witholt, a biotechnologist at ETH. “The technological platform is largely in place, and there is no shortage of research in the field.” Chemists' traditional discomfort with biological processes—a mundane but surprisingly common bar—is giving way to an appreciation of the potential benefits of enzymes. As this grows, biocatalysis should become a more interesting option for industry. “What is needed,” says Dr Witholt, “is to identify where the mid-term market and technical possibilities lie.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

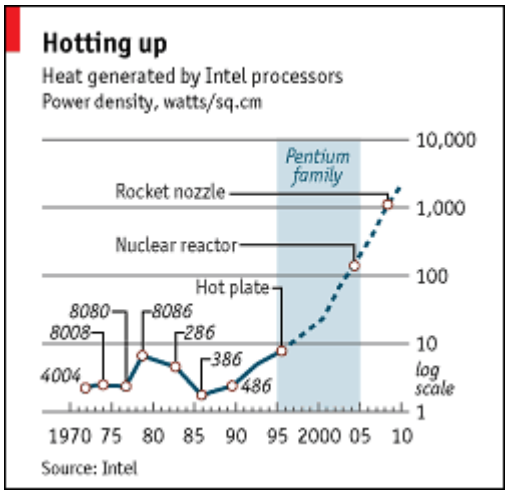
About sponsorship

SEMICONDUCTORS

Feeling the heat

Mar 13th 2003
From The Economist print edition

Semiconductors: Thermal problems caused by the latest chipmaking processes could seriously limit the pace of development of the semiconductor industry itself



PROBLEMS over the heat generated by semiconductors are becoming so severe that they threaten to slow, or even limit, the development of the entire chip industry. Andrew Grove, chairman of Intel, the world's largest semiconductor company, reckons that power consumption on board the latest generation of microprocessors is “becoming a limiter of integration”. In short, the industry's mantra—“faster, cheaper, smaller”—is under threat. Given that the doubling of chip performance every 18 months (Moore's Law) has underpinned growth in the information-technology business for the past 40 years, anything that threatens to alter that blissful state could rewrite the rules of the industry.

But do such arcane matters affect the real world? Perhaps not yet, but certainly in a year or two. Mr Grove, for instance, was speaking from bitter experience. Intel recently announced the third generation of its 64-bit Itanium processor, which it hopes will strengthen its position in the lucrative market for corporate servers. This megaprocessor will pack a staggering 410m transistors on to a single chip. Running flat out, the chip will dissipate 130 watts of heat—more than a bright household light-bulb—from an area the size of a postage stamp.

Two years ago, Patrick Gelsinger, chief technology officer of Intel, used a now-famous speech to compare the increasing energy density of chips over the coming decade to hot plates, rocket nozzles, nuclear reactors and, ultimately, the surface of the sun. For the latest Itanium, the energy to be dissipated is around 35 watts per square centimetre—equivalent to a hot plate. Merely cooling that will be hard enough. But Intel is already working with Stanford University and Sandia National Laboratories to develop thermal techniques to deal with the 200 watts per square centimetre that its chips will need to dissipate by 2005.

If adequate cooling methods are not found, the performance of these chips is going to be seriously limited. The latest Itanium is designed to go in server racks that pack rooms from floor to ceiling. To deliver as much bang per buck as possible, these have to be run flat out. But if temperatures get out of hand, the Itanium's built-in thermal monitor will throttle back all that costly computing power to a more sedate speed so it can run in a cooler (albeit less capable) mode.

Power consumption is already close to limiting innovation in, for instance, the 3D graphics chips that are used by animators and computer gamers. The latest offering from nVidia has 125m transistors—more than twice as many as Intel's latest Pentium 4. But early prototypes of the add-in cards that will carry the new nVidia chip show it buried under a ducted fan, copper heat spreaders on top and bottom and heatpipes connected to a radiator. Even as one group of nVidia engineers struggles to perfect these powerhouse chips, which are capable of making the virtual world look startlingly real, another group worries about the plumbing.

Like microprocessors for desktop PCs, graphics chips tend to have access to all the power they want, courtesy of an electricity socket on the wall. Portable equipment is not so lucky, as the energy density of batteries is limited and unlikely to improve much in the near future. For that reason alone, some portable equipment-makers have been looking seriously at miniature fuel cells as an alternative power supply.

For the foreseeable future, then, a chip's power consumption will be a serious problem for firms that make portable electronic gear and the businesses that rely on them. Consider the fate of the mobile-phone companies, which will be able to pay off the huge debts they incurred to buy their 3G licences only if they can deliver compelling new services. The reality is that nobody actually needs a 3G handset to make a mobile-phone call. But new mobile services, such as video clips of your favourite team's Saturday afternoon goals, will be feasible only if highly integrated handsets with long battery lives are available. The first 3G handsets have not come close to being able to deliver such things.

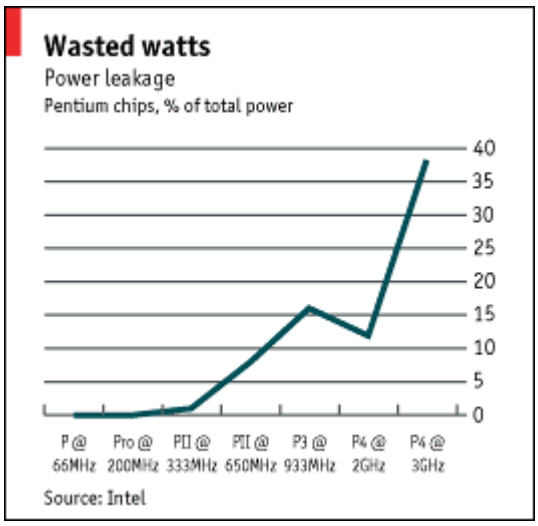
The semiconductor industry is too big—and too smart—to let such problems get in its way

The same is true for laptop computers—notorious battery hogs at the best of times. There is little point in buying the latest DVD-equipped wide-screen laptop if the battery conks out before the movie that you are watching reaches its dramatic climax. There is a safety issue, too. A recent letter to the *Lancet* told of a patient who was badly burned by working with his computer in his lap for an hour. The laptop's microprocessor was using the bottom of the case as a heatsink, causing a gentle rise in temperature that the patient failed to notice until his goose was literally cooked.

Switched on

Can this power-consumption problem be solved? The concern is about increasing transistor density but decreasing transistor efficiency. As the minimum dimensions of transistors have fallen below one micron (ie, one millionth of a metre), it has become harder to turn them off completely. This is because the insulating layer between the gate that controls the flow of current and the channel through which the current moves has thinned. At 100 nanometres (ie, one-tenth of a micron) or less, the current leaking through the transistor when it is supposed to be off can be up to 10% of the current flowing through it when it is on. When your chip has hundreds of millions of transistors, that is equivalent to a 10m-20m transistor chip working flat out all the time.

One way to control this current leakage is to improve the insulating properties of the layer that separates the gate from the channel. So far these have been made out of silicon, a material with properties that are well understood. But in devices with insulating layers that are just atoms thick, silicon's insulating properties fall short. Alternatives based on oxides of hafnium and lanthanum are being tried, but the industry is not keen about moving to a less-familiar material.



Another way to cut current leakage is to move the transistor up out of the plane of the chip's surface. This approach builds the conducting channel of the transistor in a fin of material above the chip's surface. Using gate electrodes on either side of the channel can help turn the transistor off more effectively, reducing leakage. And isolating the channel in the fin means that it has much less chance to leak current into the rest of the chip. Again, nobody relishes the prospect of making the radical move away from planar to vertical transistors. But leakage of current is now such a pressing issue that research into “vertical transistors” has moved quickly from academic groups to commercial organisations over the past five years. Large semiconductor firms, including IBM, AMD and the Taiwanese chip foundry TSMC, are busy developing finned chips.

These approaches to reducing leakage of current may solve the heat problem, but they still need to show that they are reliable; can be manufactured consistently; and are compatible with other parts of the system. Improving other chip characteristics, such as speed, may also reduce leakage. For instance, Intel is trying to find ways of making high-performance chips using silicon alloyed with germanium to create a “strained crystal lattice” that allows electrons to slither through much faster than they can squeeze through pure silicon. Although strained silicon offers performance benefits, defects in the crystal lattice can promote current leakage, boosting power consumption. Intel has had to take particular care to avoid lattice defects near the transistor's conducting channel.

This kind of intricate detail is what helps the semiconductor industry to deliver the constantly improving performance that was predicted in the 1960s by Gordon Moore, one of Intel's founders, which users have come to take for granted. But it also means that, in the semiconductor business, manufacturing

processes are a trade-off between performance, power, reliability and manufacturability. Altering any single aspect can have a profound effect on all the others.

Exponential effort

The semiconductor industry is too big—and too smart—to let such problems get in its way. Some years ago, Russell Lange, an IBM fellow, pointed out that the industry is essentially driven by exponential factors—exponential improvements in density, price/performance and so on. When a big barrier to the exponential growth of the industry emerges, he argued, an exponentially increasing amount of engineering effort tends to be applied to solve it. Hence all the attention that the power issue is now receiving. But if the engineers do not come up with solutions that work at the process level, they will have to make trade-offs in other ways. That means making better use of the transistors that a limited power budget allows.

Designers will also have to think about “architectural” issues—for instance, whether to run all of a chip's transistors, all of the time. And they will have to consider “algorithmic” issues—in other words, finding better ways of doing certain tasks. Finally, engineers will have to investigate “systems” issues—say, splitting work between battery-powered clients and mains-powered servers.

In a sense, the semiconductor industry's spectacular success has sown seeds that could cause, if not its downfall, at least some serious soul-searching. The doubling of chip density every year-and-a-half has created expectations among makers and users alike that modern electronics will go on getting faster, cheaper and smaller forever. If that growth ever slows significantly—or, heaven forbid, is brought to a halt—the knock-on effect on other industries would be profound.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

REPORTS

Little squirt

Mar 13th 2003
From The Economist print edition

A GROUP of thermo-mechanical engineers at Hewlett-Packard Laboratories in Palo Alto, California, has been trying to stop chips from frying themselves, as part of an industry-wide effort to push the boundaries of high-performance computing. The “Cool Team”, as it is known, is trying to keep data-centres humming when the chips inside the equipment are pumping out a scorching 200 watts of heat per square centimetre of surface area. It is a pressing problem, because the latest Intel 64-bit processors are already generating a sixth of this figure. By 2005, the industry's most powerful processors will be running five to ten times hotter.

Cooling chips that dissipate this much energy requires more than a bit of conduction and ventilation. Clamping a copper heatsink to the bare surface of the chip is no answer because the “thermal resistance” is too high—ie, such a large amount of thermal energy cannot flow from the chip to the heatsink fast enough to stop temperatures soaring.

Hollow “heatpipes” full of liquids with low boiling-points can cut the thermal resistance of heatsinks. Heatpipes work like miniature refrigerators: thermal energy is drawn out of the chip by allowing it to evaporate the liquid into a vapour, which then dumps the heat via cooling vanes into the outside world.

But even heatpipes have drawbacks, caused by bubbles in the liquid, which prevent it from cooling the chip's surface evenly. The Cool Team's response has been to use inkjet heads borrowed from Hewlett-Packard's printers and plotters to squirt cooling fluid directly on to the chip's surface, overcoming the bubble problem. The team has even developed a feedback mechanism so that the coolant spray can be directed to the hottest areas of the chip—rather like miniature firemen dousing a blaze from the top of a ladder.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com
PRINT EDITION
TECHNOLOGY QUARTERLY
PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

LAST WORD

The wizard of small things

Mar 13th 2003
From The Economist print edition

Richard Smalley is on a (some say hopeless) mission to harness nanotechnology to solve the world's energy problem

Nanotech's chief catalyst

NOTHING usually slows a good researcher down more than age and fame. At 59, Richard Smalley could be forgiven for taking it easy. It is not just that he has reached the pinnacle of his profession: a Nobel prize in chemistry for pioneering work in the field of nanotechnology. Equally important, there is a young son who does not see enough of his father. And until the last round of treatment a year ago, a rare form of leukemia was starting to complicate his frenetic pace of teaching, research, speaking engagements and endless trips to Washington to press the government to spend more on nanotechnology.

Perhaps emboldened by the thought of beating the cancer, Dr Smalley recently began to turn at least part of his attention to a new personal battle: working out how to provide the world with enough energy when the population reaches 10 billion and the global energy requirement has soared from today's 14 terawatts (ie, 14m megawatts) to anything from 30 to 60 terawatts of capacity.

Economists argue that forecasting such things is fraught with difficulty—and creating policies for them even more so. The elasticities of demand, supply and price interact in such a complicated, non-linear fashion that energy reserves will always remain a movable feast—expanding dramatically when demand and prices rise, contracting precipitously when they fall. The conventional wisdom, supported by genuine advances in computer-aided extraction of fossil fuels, suggests that decades', if not centuries', worth of coal, oil and gas remain to be tapped at realistic prices.

Even so, energy has become Dr Smalley's new mantra. The lack of it, he contends, is the single biggest issue facing mankind today. Certainly, some of the world's more intractable problems—war and poverty, water and food shortages, disease and pollution—are connected, in some way or other, with energy deficiency. Dr Smalley would like to see a more systematic approach to the subject than the piecemeal way it is being pursued at present. Short of building nuclear power-plants outside every major city, he believes that the only way out of the energy impasse is through the use of nanotechnology.

Richard Smalley grew up in a middle-class suburb of Kansas City, just yards from the state line that divides Kansas and Missouri. He had a brother, two sisters and a mother who thought he was extra-special, and was fond of calling him “Mr President”. His father, who managed a stable of trade journals with titles such as *Implement & Tractor*, was never quite satisfied with young Rick.

One sure way the son could win the father's attention was by turning the discussion to science, or by bringing home good marks in science. That encouraged him to concentrate on chemistry, a subject for which he clearly had a gift. Encouragement also came from an adoring aunt, who was a chemistry professor in Wyoming, and one of the few women then in the field.

Until now, Richard Smalley's gift for chemistry has served him well. But some of his colleagues suggest that he risks tarnishing his record by embarking on this “nanotech as saviour” quest. As a fellow scientist notes, “He's putting a lot of pressure on himself, and upon the whole field of nanotechnology. I hope he knows what he's getting himself into.”

Supercharging the sun

Richard Smalley admits to no such qualms. What he does admit is that the clock is ticking and something needs to be done about it, and fast. His own idea is to deploy nanotechnology on a grand scale—to help upgrade the world's energy infrastructure. He envisages a time when solar panels, augmented by nanoenhanced photovoltaics and fuel cells, collect and store power from the sun at something much closer to full efficiency than is possible today.

The photovoltaics would make the electricity, which, in turn, would be used to dissociate water by electrolysis to produce hydrogen and oxygen. The hydrogen could then be stored, either as an extremely cold liquid or as a pressurised gas. This would provide the portable fuel for powering cars or homes fitted with fuel cells. Researchers at Harvard University in Massachusetts and Cambridge University in England are already at work on “nanorods” and “nanowire” to make solar collection and storage more cost-effective. Similarly, nano-catalysts should be able to extract more energy from burning coal at higher temperatures. Meanwhile, nano-filters would capture more of the soot generated in the process.

A number of other energy-saving measures would benefit from a nanotech make-over. For instance, energy experts have long dreamed of a day when the electricity grid is rewired with superconducting cable—to reduce transmission losses. By the same token, frugal light-emitting diodes could replace wasteful incandescent and fluorescent lighting. Meanwhile, engineering mainstays such as steel, aluminium and titanium—all of which consume large quantities of energy during their manufacture—could be replaced by superstrong nanocomposites and carbon nanotubes.

Richard Smalley did not invent nanotechnology. Like nanotech itself, he is an enabler

Deploying nanotechnology on such a scale, however, would be akin to putting a man on the moon. Brilliant as it was, the Apollo project, which cost $25 billion in 1969 money, provided only the right questions to ask about the origins of the earth and the solar system. Coming up with the right questions to ask about the energy conundrum, let alone the right answers, could cost today's equivalent or more. If Apollo and the Human Genome Project are what researchers call Big Science, a Nanotechnology Energy Initiative might be termed Extreme Science.

Wishful thinking

Does this make Richard Smalley's new mission little more than a pipe dream? The soft-spoken professor of chemistry and physics at Rice University in Houston, Texas, does not see it that way. He is now preparing to take his low-energy outline to policymakers and energy companies—indeed, to anybody who will listen. He believes that if the rich countries do not act soon, they will have a rude awakening within a few decades, when exploitation of the world's most easily accessible sources of oil and natural gas become less attractive economically. To meet a global energy requirement of 30 terawatts in 20 years' time, work on the new extraction technologies ought to begin today—such are the time-scales of the industry.

For years Dr Smalley has extolled the scientific elegance, not to mention the potential applications, of carbon nanotubes and fullerenes (commonly known as “buckyballs”), with their remarkable physical, chemical, electrical and optical properties. Friends say that, when Dr Smalley hit on this crusade, it was not just as though a light-bulb had flashed on. “He's like one of those static electricity machines,” one colleague says. “You feel this powerful sense of electricity whenever you get near him.”

Outside nanotechnology, Richard Smalley is hardly a household name. But within this small but growing world, where achievements are measured in nanometres (ie, billionths of a metre) and structures are built one atom at a time, Dr Smalley is a giant. He played a seminal role in persuading the American government to create the National Nanotechnology Initiative. At a time when funding for basic research was being cut, NNI's budget has grown from nothing to more than $700m in three years, and now spans 15 government agencies, from NASA to the Pentagon.

Dr Smalley is the founding director of Rice University's Centre for Biological and Environmental Nanotechnology, which was established in order to address the scientific, technological, environmental, commercial and social barriers that hinder the transition from nanoscience to nanotechnology. Dr Smalley does not waste time worrying about the “what ifs?” of his chosen endeavour. But he is smart enough to surround himself with people who do.

But not always that smart. He has a knack of adroitly skirting many of the trickier controversies, only to be blindsided by some of the more avoidable ones. Friends in the field say he is driven to distraction by

people who are obsessed about vague theoretical notions spread by gloomy nano-futurologists such as Eric Drexler and Bill Joy.

A pioneer on the more theoretical side of nanotechnology and co-founder of the Foresight Institute in Silicon Valley, Dr Drexler fears that nanotechnology could lead to a future in which self-assembling and self-replicating nanobots are in control—as envisaged in Michael Crichton's latest novel, “Prey”. Bill Joy, a gifted software programmer who helped start Sun Microsystems and remains its chief scientist, has found fame as a latter-day Cassandra, declaring nanotechnology to be potentially so dangerous that it should be abandoned.

Fear of the Luddites

Musing about such unintended consequences makes Richard Smalley's blood boil. The trouble, he fumes, is that the more people start worrying about nanobots and grey-goo swarms, the more likely it is that there will be a mindless backlash against all nanotech research, just as there was against GM (genetically modified) crops a few years ago. If nanobots could replicate, they would constitute a new form of life, snaps Dr Smalley. “This is beyond naive.” As for Bill Joy, Dr Smalley is equally dismissive: “I say get up and turn on the lights, Bill, because this nanobot future is just a silly nightmare.”

Dr Smalley had hoped that, when *Scientific American* devoted a special issue to the serious side of nanotechnology, it would drive a stake through the heart of the grey-goo, self-replicating nanobot idea. It did not. And with “Prey” due out as a movie soon, Luddites everywhere could be ready to latch on to a sequel to the GM hysteria.

But considering that governments around the world spent $2 billion on nanotech research last year, Dr Smalley need not worry unduly about nanotechnology's hold over the scientific establishment and those who finance it. Likewise, in the seven years since Dr Smalley won his Nobel prize, along with Sir Harry Kroto and Robert Curl, every big university in the world seems to have built curriculums around nanotechnology, and every big high-tech company from IBM and Hewlett-Packard to NEC and Sony has accelerated its nanotech research and development.

Richard Smalley did not invent nanotechnology. Like nanotech itself, he is an enabler, a catalyst—that little-noticed ingredient that makes things work better. A nanotech wizard could do worse things with his time, political capital and curiosity than help the world squeeze a little more from its precious energy supplies.

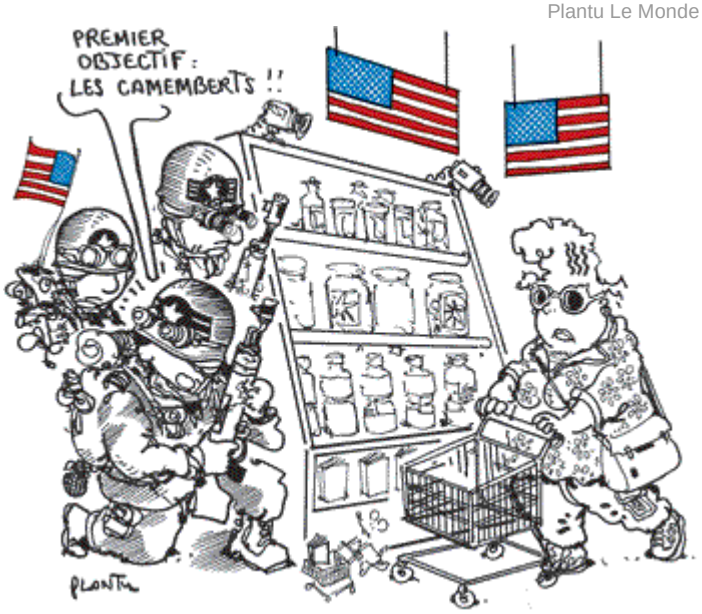
Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Geopolitics and business

The dangers of war

Mar 13th 2003 | NEW YORK
From The Economist print edition

Plantu Le Monde



The waiting has taken a toll on business activity. But is worse to come?

FOR a company, the first casualty of war may be what does not happen. Worrying constantly about worst-case scenarios for events in Iraq, many bosses have simply opted for a strategy of paralysis, postponing big decisions until the uncertainty goes away. Others would be glad to do nothing, but have to cope with a collapse in demand partly caused by fear.

The gloom is affecting post-war planning, as bosses on one side of the Atlantic fear that political anti-Americanism abroad may turn into commercial anti-Americanism; while those on the other side worry about the impact on trade of all those anti-European jokes doing the rounds in America. (What do you call a Frenchman advancing on Baghdad? A salesman.) A cartoon (above) in *Le Monde* this week caught the mood perfectly.

It is hard to separate out the impact of broader economic worries, but certain businesses have clearly been hurt by war fears. Advertising firms such as WPP have been hit by the reluctance of clients to push any message that risks being rendered irrelevant by overnight events. Bleak reports from carmakers and appliance manufacturers suggest that consumers are delaying big purchases.

As in the 1991 Gulf war, airlines are in the front line. Some aircraft are crossing the Atlantic with more crew than passengers. Tour firms in London say that February, usually a peak month for bookings by incoming American and Japanese, was grim.

Not flying the flag

The Air Transport Association, the industry's trade association in America, says that war could add $4 billion to the $6.7 billion that the industry already expected to lose this year. The ATA claims that another 70,000 jobs could go. The airlines have seen war fears double their fuel costs, although some have hedged part of the increased oil price.

Other costs of doing business have also risen sharply. Banks are requiring borrowers to buy more insurance against business disruption before agreeing to finance any construction or manufacturing project anywhere in the world that is now considered dangerous, which means just about everywhere, according to the Willis Group, a global insurance broker. Tougher security checks at airports and sea terminals have added to transport costs.

Security concerns have made America's State Department more rigorous over issuing visas. Applications that once took days now take months. For many firms that sell large capital goods, this can be a nightmare. Cincinnati Machines, one of America's largest toolmakers, had a $5m metal-cutting machine on its factory floor in Ohio for five months, awaiting a final inspection from Chinese buyers who could not enter the country. This is not unusual among makers of sophisticated products. Chip Storie, Cincinnati's head of sales, says many customers worry about possible future restrictions—which does not help to generate business.

Even so, there are some winners. War is good for shipping. The military hire roll-on, roll-off ships to move tanks, supplies and equipment around. Rates have risen. Firms are asking suppliers to stockpile key components, which further boosts shipping traffic. Carmakers such as Toyota, General Motors and Honda have asked suppliers to increase stocks in Europe, fearing closure of the Suez canal.

So much for rational business responses to war and fears of war. But what of the emotional response? Is the growing international political divide over Iraq starting to hurt business—and might it outlast the present crisis? The risk is greatest in two areas. Governments on either side of the Atlantic may punish firms from countries that opposed them over Iraq. And consumers may start to care about which country produces the goods they buy.

Is the growing international political divide over Iraq starting to hurt business—and might it outlast the present crisis?

So far, for all the bluster on both sides of the Atlantic, the political war has remained largely one of words. America's Congress has renamed two of the least healthy items on its cafeteria menu, transforming french fries and French toast into freedom fries and freedom toast. An American military contract with Krauss-Maffei Wegmann, a German maker of armoured vehicles, has fallen through.

A bigger worry surrounds the World Trade Organisation's Doha round of trade negotiations. In Washington, support is growing for rewarding countries supportive of America's military policies with bilateral trade deals instead of pursuing multilateral agreements.

Non-governmental commerce has so far seen nationalistic skirmishes, but nothing close to all-out war. CSFB, a Swiss-American investment bank, says it recently arranged a complex financial deal with 100 or so potential institutional investors. In an unprecedented move, ten of the buyers refused to participate because the company raising funds was French. American business schools say that applications from abroad are down. The head of one says that the atmosphere at a recent executive education programme became so poisonous that two European students were sent home.

German car industry leaders, led by Helmut Panke, chief executive of BMW, have lobbied the German chancellor, Gerhard Schröder, about the damage his pacifist stance is doing to their prospects in the crucial American market. A survey reports that 20% of German engineering firms believe that exports to America have been hurt by divisions over the war. German executives are planning a big German-American business summit in Washington, DC, in May—but are struggling to find American firms willing to attend.

Meanwhile, American businesses fear that European consumers might follow the lead of those in the Middle East. Coca-Cola, McDonald's, Starbucks and Altria (née Philip Morris) have all been hurt by the expansion of boycotts that began against firms trading with Israel a half-century ago. Spotting a chance to exploit anti-American sentiment in France and maybe even Britain, Tawfik Mathlouthi, a Tunisian living in France, has received buckets of publicity for his recently launched Mecca-Cola.

Yet there is reason to hope that such fall-out will be limited. Surveys suggest that most people separate politics from consumption. Last year, Research International surveyed 1,500 people in 41 countries aged 18-34 and found that this held true even for political activists. One respondent noted that whenever he went to a protest against capitalism the protesters wore Levi's. “Our political view has nothing to do with our behaviour as customers,” he said. The world's leading firms are praying it stays that way.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Hostile environment training

Fun with the SAS

Mar 13th 2003 | LISS, HAMPSHIRE
From The Economist print edition

A booming niche business

ARMED, screaming men grab a dozen journalists at a roadblock. The reporters are hooded, dragged through a forest by their thumbs, pushed into a hut and interrogated on a cold concrete floor. A venerable figure from the “Today” programme, the BBC's most serious morning radio show, is pulled aside and called a “bald, fat, Scottish git,” as he begs for his life. One by one, reporters from the BBC, CBS and *The Economist* are taken to plead with the gunmen. Each is told to kneel and then endures a mock execution.

This sort of thing happens most weeks in southern England, where growing numbers of journalists now undergo “risk awareness training”—usually at the hands of retired SAS special forces officers who seem to enjoy kidnapping reporters. According to the International Federation of Journalists, 70 media staff were killed while working last year; in 2001, 100 died. Most were investigative reporters in poor countries. But others in recent years were from rich, litigious countries, killed in wars in the Balkans, Sierra Leone and Afghanistan, in the September 11th attack in New York, and even, in one case, from anthrax inhalation in Florida. The murder in Pakistan of a *Wall Street Journal* reporter, Daniel Pearl, attracted worldwide attention.

As a result, insurance premiums are rising for reporters who work abroad, and employers are increasingly worried about their duty of care and potential legal liability for deaths or injuries. Many media organisations are willing, therefore, to pay around £2,000 ($3,200) a head for a week of basic security, medical and driving advice. The BBC now requires most of its travelling staff to undergo such courses every three years. In the past few months, in anticipation of war with Iraq, specialist chemical-and-biological weapons sessions have been block-booked.

One British firm, Centurion Risk Assessment Services, says that 10,000 people have taken its general security programme since 1995. Its staff, and those of a rival, Pilgrims, also run courses in America.

Some firms, including older ones such as Britain's AKE (formed by an ex-SAS man in 1991), are broadening their reach beyond training. Nervous reporters in the field can now call a helpline for advice; some crews of journalists travel with their own safety advisers, often hired from the ranks of British ex-soldiers.

But, sad to say, there are only so many journalists. In future, training firms expect demand to come from other quarters. Aid workers and even backpackers travel to dangerous places, and they are being tempted with shorter, cheaper training courses—an increasingly popular gift from wealthy parents to children off to see the world. Businessmen and diplomats may be less likely to wander into war zones, but they have long bought advice on how to avoid abduction in Bogota or hold-ups in Johannesburg.

Control Risks Group has advised clients since 1975 on security abroad; it now has a £45m annual turnover. Christopher Grose, a director, says the security business is growing: “September 11th raised it right up to the forefront of people's minds, there is much greater awareness.” With rising terrorist risk, even staff who stay at corporate headquarters should prepare for a hostile environment, with, say, some basic medical training. It is indeed an ill wind.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Ford Motor Company

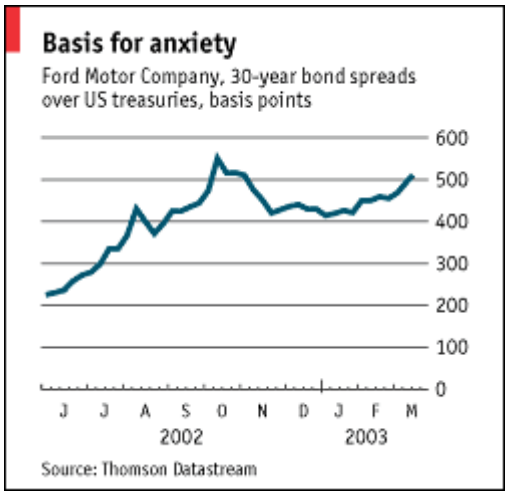
Junkyard blues

Mar 13th 2003
From The Economist print edition

Fresh talk that Ford might go bust

AN ANALYST who made his reputation by forecasting the downfall of both Enron and WorldCom claims that America's biggest corporate borrower has been saved from going bust only because its name is Ford. Sean Egan is the founder of a young credit-rating agency, Egan-Jones, which is seeking recognition from the Securities and Exchange Commission. Its website trumpets its many triumphs.

To back up his headline-grabbing claim, Mr Egan points to Ford's persistent losses, heavy interest obligations, huge pension-fund liabilities, excessive leverage, over-reliance on securitised-debt sales, and more. His biggest worry is that Ford must keep tapping the market to roll over its debt. Last October, it was shut out of the unsecured-debt market when its spreads widened too far. Since then, it has relied increasingly on debt secured against customer repayments of car loans.



There are two problems with this strategy. One, says Mr Egan, is that, sooner or later, the established credit-rating agencies will not tolerate the way in which such secured issues in effect debase the firm's unsecured debt. The other is that conditions in the car business are getting tougher by the week. Sales in America will fall by 12% this year, according to the latest forecast from Autopolis, an industry consultancy.

Used-car values are now falling and inventories of new cars are rising. Both trends make it harder to raise securitised loans. Ford's inventory levels in America were running almost 20% above normal at the end of February. In Europe, Ford is cutting back its leasing deals.

Ford has brushed off Mr Egan's claim, stressing that its pension liabilities, for example, are manageable. This week, Standard & Poor's (S&P) reaffirmed the company's triple-B credit rating, one notch above junk status. Yet, since the failures of Enron and WorldCom, S&P and Moody's, the two biggest rating agencies, have faced criticism for being too slow to spot looming corporate disasters. Mr Egan's view is that, even if investors do not share his view that bankruptcy is on the cards, they should at best price its bonds as junk. As if to drive home the gloomy message, Ford's share price, around $37 in 1999, fell this week to $6.60, its lowest for 15 years.

Bill Ford, chairman and chief executive of the family company since Jacques Nasser was hounded out 18 months ago, is trying to re-trim the Ford vessel in the midst of a storm. General Motors (GM) has wrested the initiative in the American market, gaining market share from Ford thanks to its generous sales incentives. Ford has had to follow suit, even though its higher costs mean it is in no fit state to do so. GM's boss, Rick Wagoner, admits that the February slump in sales showed that discounts were losing the power to stimulate sales, after a good run ever since they were introduced after the terrorist attacks of September 11th 2001. But he is determined to get them working again.

Some progress has been made at Ford. Although it lost $980m last year, this was down on the $5.4 billion deficit in 2001. After stripping out one-off charges and accounting changes, it made profits of $872m last year, compared with an operating loss of $782m in 2001. It is closing some American factories and straining to improve quality and its tired product range. Its European business has been reshaped and excess capacity slashed. The strategy of Ford's Premier Automotive Group (which comprises Land Rover, Aston Martin, Volvo and Jaguar) is being rewritten after overspending by former

management.

Yet, ominously, just as Mr Egan and recent increases in spreads on Ford bonds over treasury bonds have set alarm-bells ringing, signs of tension at the top of the company's British-dominated management team have emerged. Amid much embarrassment, Sir Nick Scheele, Ford's chief operating officer and number two to Mr Ford, this week reversed a decision to place all of the firm's advertising in the hands of WPP (a British-based agency group that already handles 80% of it). A leak to the *Detroit News* said the firm was reviewing whether he had breached Ford's purchasing procedures. It is hard enough to steady the ship in a storm; when people start to attack the judgment of the first mate, might it not be time for the big American banks to launch a lifeboat?

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

Steel

Corus of disapproval

Mar 13th 2003
From The Economist print edition

Another European corporate mess

Get article background

HALLELUJAH! might have been an overreaction to the creation of Corus in 1999—but the marriage was welcomed warmly at the time. The newly combined Anglo-Dutch group became the world's third-biggest steel company, with a £4 billion ($6 billion) market capitalisation and, it seemed, scope to prosper in an industry plagued by overcapacity. Today the group is worth only £150m and is threatened with bankruptcy or possible break-up. What has gone wrong?

It is now clear that Corus was an ill-conceived venture from the start. It failed to construct a workable model for its internal management, choosing instead to paper over the differences between the British and Dutch systems. Other, older, combined ventures, such as Royal Dutch/Shell and Unilever, have worked far better.

Problems emerged last year when Corus pulled out of a Brazilian acquisition, amid arguments about strategic direction. But they came to a head on March 11th, when the supervisory board of Corus's Dutch arm blocked the £543m sale of the group's aluminium business to France's Pechiney. Corus appealed against the decision in a Dutch court, but on March 13th the court sided with the supervisory board and the sale has now been abandoned. Corus's shares plunged by more than 60% as investors headed for the exit. The group's chairman said he would step down earlier than expected.

The nub of the argument was that the relatively healthy Dutch arm believes it is propping up the loss-making British arm and that the mainly British top management has failed to grapple with its domestic problem. The Dutch refusal to endorse the sale to Pechiney was designed to stop good money being thrown after bad.

Given the recovery in steel prices over the past 18 months, it is surprising that Corus has not done better. Regardless of the court ruling, Corus admits that it must undertake a costly restructuring of the British business, with thousands of jobs at stake. There is a risk of political interference, not to mention union rebellion. That takes the gloss off earlier cost-reduction efforts that have borne some fruit.

There is also huge financial risk. Corus is better off than many competitors, including American ones, in that it does not face a looming pension crunch. As one analyst puts it, “Corus is an £11 billion pension plan with a problematic steel business attached.” But without Pechiney's money, Corus might have to resort to a rights issue. Its paltry equity base makes that look almost impossible. A *euro*1.6 billion ($1.8 billion) credit line expires next January; already Corus's banks are twitchy about extending it. There is talk that a break-up might reveal hidden value. But for the time being, investors are unlikely to return until they can see more clearly where Corus is going.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Expensing share options

Now for plan B

Mar 13th 2003 | NEW YORK
From The Economist print edition

The battle to fend off sensible accounting

AP

Volcker the heavyweight

ONLY desperate, last-minute lobbying saved America's technology firms last summer from having to count as an expense the billions of dollars-worth of share options that they dish out to their staff each year. This time, the tech industry is better prepared. Even before the Financial Accounting Standards Board (FASB) announced on March 12th that it was opening a formal inquiry into mandating the expensing of stock options, a coalition of tech lobbyists was carpet-bombing the press with propaganda. Wisely, the techies have also shifted their defence.

The expensing debate has required delicate handling by Silicon Valley. On the one hand, tech firms oppose the notion that options are an expense at all: accounting for their cost by the usual method (the Black-Scholes options-pricing model) would cut tech firms' reported profits by 70%, on some estimates. On the other, tech firms must guard against the notion that their profits—such as they are—are an accounting fiction. This creates a countervailing urge to argue that the market is already counting in the costs of options, either in its studious attention to the footnotes (where American firms must already disclose cost estimates), or in the way they dilute corporate profits for shares in issue.

Awkwardly, these two arguments are not only bogus, but contradictory. That has made them easier to demolish, a job done most comprehensively by Zvi Bodie, Robert Kaplan and Robert Merton in the latest Harvard Business Review. The standard-setters at FASB, meanwhile, are sticking to their guns. So the latest gambit from the International Employee Stock Options Coalition, a tech-industry lobby group, is to shift the debate towards the practical issue of how the cost of options should be calculated. This, maintains the coalition, is such an uncertain and controversial art that expensing would do more harm than good, by sowing confusion among investors. As evidence, they cite comments by Paul Volcker, an options-expensing heavyweight. “There's so much controversy about how to expense [options]”, Mr Volcker said at a recent conference, “it may conceivably even now kill the credibility of expensing them.”

Mr Volcker seems surprised at his claimed solidarity with the techies: he says he was expressing a fear that their lobbying tactics might work. It would be better to expense inaccurately, adds Mr Volcker, than not at all. The odds are that FASB will take the same view. Testifying before Congress on March 4th, FASB's chairman, Bob Herz, confirmed his desire to get options expensed. FASB officials say it has strong support among investors. After recent corporate scandals, Congress may be less inclined to meddle, as it did in 1994 when politicians helped to block an earlier attempt to require the expensing of options.

Still, there is a good argument that the Black-Scholes model may overvalue the cost of employee stock options, albeit by far less than the tech industry claims. (Options are sometimes forfeited when employees leave the firm, for instance, which makes the options worthless.) If the tech industry can claw back even a portion of the 70% of its reported profits that are about to vanish, its lobbying might still be money well spent.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Business in South Korea

Chaebol trouble

Mar 13th 2003 | SEOUL
From The Economist print edition

Is the scandal at SK Group a sign of things to come in South Korea?

SOUTH KOREA'S new president, Roh Moo-hyun, was elected in part because his promise to reform the country's large conglomerate groups, the *chaebol*, appealed to younger voters. But despite some headline-grabbing moves—not least this week's indictment of ten senior executives of SK Group, the third-largest *chaebol*—there are already signs that his reform efforts will struggle.

On March 12th, a week after the Fair Trade Commission announced a probe of six *chaebol*—Samsung, LG, SK Group, Hyundai, Hyundai Motor and Hyundai Heavy Industries—over allegedly illegal intra-group transactions, the antitrust regulator suddenly decided to delay action "in consideration of the situation in Iraq and the North Korean nuclear crisis." Nor does it seem as likely as first thought that the move against SK Group will herald similar action against other scandal-ridden firms.

On March 11th, prosecutors indicted SK Group's chairman, Son Kil-seung, who also heads the country's most influential business lobby, and nine other top executives. The prosecution claimed that SK Global, a group company, had inflated its profits by more than 1.5 trillion won ($1.2 billion).

Questions have been raised about the group's ability to service its debts, and creditors are meeting to decide what action to take. The group may stop being a loose network and instead adopt a more powerful holding company structure. Some units may be spun off—perhaps starting with SK Telecom, says Merrill Lynch. Meanwhile, Mr Son and, more likely, the other executives may face a jail term.

But the negative financial market reaction to the indictments—exacerbated by the global stockmarket meltdown this week—has made reform seem suddenly less appealing to many South Koreans. After all, what with the North Korean crisis and other global political events, declining consumer confidence, a falling won and growing competitive pressure from Chinese firms, is this really the best time to disrupt *chaebol* that, for all their flaws, remain the backbone of the country's economy? Thus, the shake-up of SK Group may prove to be a one-off, as the reform of other *chaebol* is postponed pending economic recovery.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

British corporate governance

Hating Higgs

Mar 13th 2003
From The Economist print edition

Britain's bosses are grousing about a new report on governance

HOW can a boss be a boss if he is told how to run his board? Britain's corporate chairmen are up in arms over a government-commissioned review by Derek Higgs, a former banker, of the role and effectiveness of non-executive directors. The review came complete with a code of practice that the government wants to rush into effect by the summer. This week the Confederation of British Industry (CBI) published the result of a poll of the top 100 companies, to which 61 chairmen replied (three of them representing two firms each, something the code is against). The answers were a collective raspberry.

The two provisions that chairmen hate most concern the designation of a senior non-executive director (82% against, 57% strongly so) and the chairing of the committee nominating new directors (87% against, 61% strongly). The new code calls for a senior independent director to join regular management meetings with big shareholders and report back to the board. The critics complain that this muddles the role of the chairman, who elsewhere in the code is made responsible for communicating with shareholders. The code also requires the nomination committee to be chaired by an independent non-executive, and not by the chairman—who may, however, still sit on it.

Institutional investors have mostly supported the Higgs reforms, even though they will have to do more work as a result. So why the fuss? Some of the critics appear to have read neither the review nor its proposed code. Yet the code—drafted not by Mr Higgs, but mostly by civil servants—appears excessively detailed and prescriptive. And the government seems determined to push it through.

The code is a cumbersome document, roughly twice the size of today's version, says Rod Armitage of the CBI. Firms will have to comply with its provisions or explain why they have not done so. “Comply or explain” has served corporate governance well in the past. But it works best if there is peer pressure and a general acceptance of the code. If those are lacking, too many companies may rebel.

A hurried consultation process has aggravated bosses' irritation. The government has made clear that it does not plan to do more than a bit of tweaking. Ruth Kelly, financial secretary to the Treasury, backed the reforms in a speech this week. Yet many firms will face an upheaval if they are to comply with the code.

Sarah Wilson, managing director of Manifest, a proxy-voting company, believes that every company in the FTSE 100 breaks at least one of the provisions. Smaller firms may find compliance even more burdensome. Non-executive directors do not come cheap. Simon Bartholomew of Russell Reynolds, an executive-search company, says it is harder for small quoted companies to recruit high-quality non-executives, because they often have weaker financial controls, their boards carry less prestige and they pay less.

Mr Higgs, whose report is better reading than the code, could spend the weekend looking at how the code might be better drafted. If only the civil servants had made him write it in the first place.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economist.com BUSINESS
PRINTABLE PAGE VIEW SPONSORED BY
About sponsorship

French corporate governance

Independent? Moi?

Mar 13th 2003
From The Economist print edition

Independence is in doubt in the boardrooms of France

“INDEPENDENT company directors do not exist,” says Claude Bébéar, founder of AXA, a French insurer. This was literally true in France until the mid-1990s, when an investigation into reforms of French corporate governance introduced the concept to the country's boardrooms. A further inquiry in 1999 recommended that at least one-third of company directors be independent—with yet another report, last September, by Daniel Bouton, head of Société Générale, raising the recommended quota to half.

Now yet another paper, published by the Institut Montaigne, a think-tank in Paris set up by Mr Bébéar, concludes that French company directors are never truly independent. “We like the idea, but not the French interpretation of the Anglo-Saxon concept,” says Laurent Ménière, who wrote the report. Whereas in America and Britain the main reason for the ineffectiveness of so many ostensibly independent directors is that they were recruited from among the boss's golfing chums, in France the problem is the old school tie.

France's company boards are full of members of the country's elite, which consists almost exclusively of graduates of the *Ecole Nationale d'Administration* (ENA) and the *Ecole Polytechnique*. There are only a few of them: ENA produces about 40 graduates a year, the *Ecole Polytechnique* 300. (This compares with thousands of graduates each year from America's and Britain's top universities, plus countless graduates of the university of life who are not barred from those countries' top jobs.) Among today's heavyweights, Ernest-Antoine Seillière, boss of Wendel Investissement, an investment firm, and Henri de Castries, head of AXA, are both *Enarques*. Bernard Arnault, boss of LVMH, a luxury-goods firm, and Bertrand Collomb, head of Lafarge, are *Polytechniciens*. Jean-Marie Messier, the disgraced former head of Vivendi, managed the rare feat of attending both schools.

“It is always the same people on company boards, and many have amicable relations,” says Mr Bébéar. That has led Mr Ménière to oppose having a mandatory quota for independent directors. He thinks the main problem with corporate governance is the country's dormant shareholders. Few institutional or retail investors attend annual general meetings or vote, instead sending in blank proxies. But there may be a simpler option. If it is too unbearable to select board members from outside France's own elite, why not do so from foreign elites? Such as those of Germany, or even—*Sacre Bleu!*—Britain or America.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Face value

The unrepentant oilman

Mar 13th 2003
From The Economist print edition

Unlike many of his rivals, Exxon's Lee Raymond thinks oil is unambiguously good

Reuters

"EVERYONE at this company works for the general good—and I'm the general of that general good." So declares Lee Raymond, boss of Exxon Mobil. In this age of political correctness and fluffy management mantras, his candour is refreshing. Few other corporate chiefs would even try to get away with the blunt talk that Mr Raymond favours. Yet despite an imperial style at odds with corporate-governance fashion, Wall Street fetes Mr Raymond as, to cite Morgan Stanley, "one of the most astute chairmen/CEOs in all of industry."

On the face of it, it is easy to see why investors love Mr Raymond. Since taking charge in 1993, he has merged Mobil into Exxon successfully—squeezing out savings of $7 billion so far. And, through strict financial controls and concentrating power at this once decentralised firm's headquarters in Irving, Texas, he has delivered far better returns on capital than his main rivals.

And yet there are reasons to doubt that such candour and blunt speaking are nowadays astute policies for any boss, let alone the head of the world's biggest oil company, at a time when oil stands accused of inspiring a likely war with Iraq and—if war does not do the job first—of devastating the planet through global warming. Given today's geopolitics, shareholders might be wise to go easy on the praise and instead to urge Mr Raymond to pipe down and become warmer and fuzzier, rather like BP's boss, Lord Browne, with his much-hyped strategy of taking the firm "beyond petroleum" into something greener.

Do Mr Raymond's recent downbeat comments about war and the oil markets suggest that he is starting to change his ways? Last week, he told Wall Street analysts that he would like to see oil prices fall ("we're not at all comfortable with oil prices in the high $30s") and denied seemingly well-sourced reports that he had met administration officials to discuss how to revitalise Iraq's oil industry after a war. Both comments were probably just the same old truth and candour.

After all, ask him about the future of energy, as *The Economist* did recently, and you will still hear the Exxon tiger roar against the conventional wisdom. Dare to suggest that the scientific evidence for climate change is strong enough to warrant action, and Mr Raymond will label you naive and deliver a half-hour lecture on how government scientists exaggerate evidence of global warming in order to win lucrative research finance—which may not be entirely untrue. Ask about renewable energy, and Mr Raymond obligingly dismisses it as "a complete waste of money". Mention at your peril the possibility that hydrogen will be the fuel of this century, just as oil was that of the previous one. As he brushes you aside, Mr Raymond proclaims that "oil and gas will be the dominant energy until at least the middle of the century."

The argument that, in order to protect the environment, humanity must start to abandon oil and its symbiotic twin, the internal-combustion engine, in favour of fuel cells that use hydrogen has become so fashionable that Tony Blair and even George Bush now espouse it. With the oilman in the White House in favour, surely Exxon must appreciate the case for at least saying the politically correct thing, even if its actions do not live up to the rhetoric? Far from it. Mr Raymond growls that Mr Bush and Mr Blair "just don't know what they are talking about!" He insists that the costs of manufacturing hydrogen fuel (which, unlike petrol, is not a primary energy source) and developing the infrastructure to support fuel-cell-powered cars are simply too high. Exxon's forecasters are convinced that, even on the most optimistic

assumptions, such green technologies will by 2020 have lowered demand for gasoline by a mere 5%.

Even while Exxon's rivals continue to pump oil as if there were no tomorrow—BP has just announced an investment in Russia's oil industry that dwarfs anything it is investing beyond petroleum—they also welcome, officially at least, the imminent invasion of the energy markets by fuel cells. Several have created hydrogen divisions inside their firms. This does not impress Mr Raymond. “Show me the money!” he thunders.

Beyond money

Mr Raymond is right that his rivals' new-found enthusiasm for greenery is not primarily driven by the profit-maximising motive. But given the growing ability of activists to hurt share prices, those firms' shareholders might nonetheless regard such behaviour as prudent. Although Exxon, the firm responsible for the Valdez oil spill in Alaska, is increasingly criticised by activists and is the target of shareholder boycotts, BP, Shell and others are desperate to be treated more kindly.

Shell, in particular, changed tack after its shares plunged in the mid-1990s. It had come under fire from corporate social responsibility activists over the execution of Ken Saro-Wiwa in Nigeria, where Shell is the biggest foreign firm. Environmentalists had also attacked it over its planned disposal of an oil rig in the North Sea. The other oil majors worry, too, about the Carbon Disclosure Project, a coalition of shareholders with more than $4 trillion in assets, which argues that firms that do not prepare for a low-carbon economy are risking their shareholders' capital. If nothing else, Exxon's rivals say quietly, their green investments will serve as hedging bets should the transition to clean energy happen unexpectedly soon.

Judged by his financial record alone, Mr Raymond could claim to be the most successful oil boss since Rockefeller of Standard Oil, out of which both Exxon and Mobil were spawned. His retirement, originally scheduled for this year, has been indefinitely postponed, and his mouth is still untamed. So what happens to Mr Raymond's reputation in the years to come will be a barometer of the relative strengths of red-blooded capitalism and of the kinder, gentler, greener, more socially responsible—and perhaps less profitable—version. Watch this space.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

The world economy

Horror stories

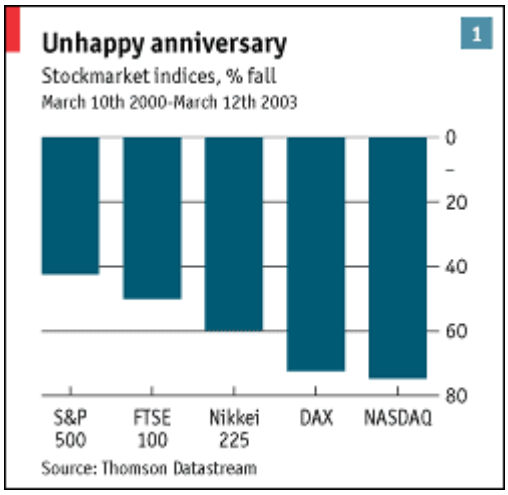
Mar 13th 2003
From The Economist print edition

EPA

Even without the uncertainty about Iraq, the global economy would be fragile

BEARS are supposed to hibernate all winter. This year they have had little rest. Investors marked this week's third anniversary of the Nasdaq stockmarket's peak by pushing most markets to fresh lows—some 50% or more below their levels in early 2000 (see chart 1). Some economists reckon that the outlook for the big rich economies is similarly grizzly.

The reason why markets are nervous is not just the imminence of war with Iraq, but the evidence that, even without a war, the world economy is in worse shape than many had thought. America's total payroll employment fell by a huge 308,000 in February. Some of this was due to bad weather and the call-up of military reservists, but other surveys confirm that companies have been cutting labour in response to falling profits and rising energy costs.

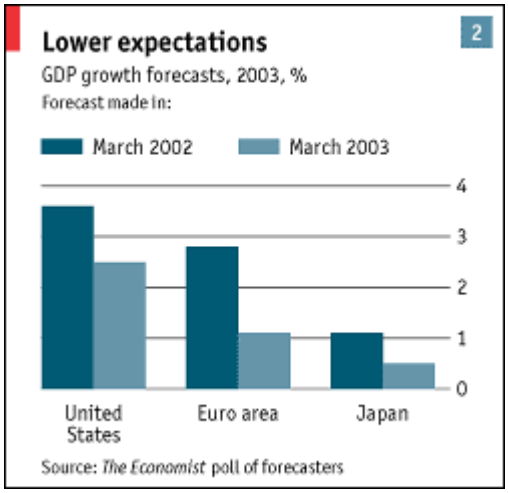


A weak jobs market, along with war fears, explains why in February the Conference Board's index of consumer confidence fell to its lowest in nine years. Consumer spending, the main pillar of the American economy over the past two years, seems to be stalling. Some economists are starting to fret about the risk of another recession—the second in three years. Every big oil-price increase over the past three decades has been followed by an American recession. That does not prove that oil shocks always cause recession. But with the economy already vulnerable, a sustained rise in oil prices above $40 a barrel could nudge it over the edge.

Many forecasters now expect GDP growth in America of only 1-1.5% at an annual rate in the first half of this year. Futures markets are pricing in a more than 50% chance that America's Federal Reserve will cut interest rates at its open-market committee meeting next week.

It is not only America where growth forecasts are being shaved. A year ago, GDP growth in the euro area was tipped to be a

respectable 2.8% in 2003 by *The Economist's* poll of forecasters; now it is expected to be only 1.1% (see chart 2). This represents an even more dramatic pruning than the cut in America's expected growth rate from 3.6% to 2.5%. Germany's GDP shrank slightly in the fourth quarter, and may well have contracted again in the present quarter, meeting the popular definition of a recession. German industrial production jumped by 1.6% in January, but this followed a 3.5% fall in December, so output remains weak.



Jobs are also disappearing in the euro area. German unemployment jumped by 135,000 in January and February, close to its fastest rate of increase since the depths of the early 1990s recession. Germany's jobless rate stands at 10.5% of its labour force. In France, too, surveys show that households are more worried about jobs than at any time since the early 1990s. French consumer confidence has fallen to its lowest for six years.

Japan, for years the economic laggard, was in the unusual position of having the fastest GDP growth rate in the fourth quarter of last year (2.2% at an annual rate) of any of the 15 rich countries that are monitored each week on our Economic indicators pages. This was largely due to a jump in net exports, helped by strong demand in China. But Japan's brief spurt looks unsustainable: most forecasters expect its growth to average only about 0.5% both this year and next.

The recent rise in the yen against the dollar will hurt exports and reinforce deflationary pressures. Japan's trade surplus narrowed sharply in January. Toshihiko Fukui, who takes over as the new governor of the Bank of Japan next week, is not expected to embrace a radical easing of monetary policy to rid the country of deflation. The Japanese stockmarket fell this week to its lowest in 20 years, prompting fears of a new financial crisis, because lower share prices will erode the capital of banks and insurers when they close their books at the end of the financial year on March 31st.

Still bubbling over

To a large extent the fate of the rich economies rests on America. Stephen Roach, chief economist at Morgan Stanley, reckons that America accounted for two-thirds of total global growth since 1995. If the American economy now stumbles again, neither Europe nor Japan look ready to take over as an engine of growth.

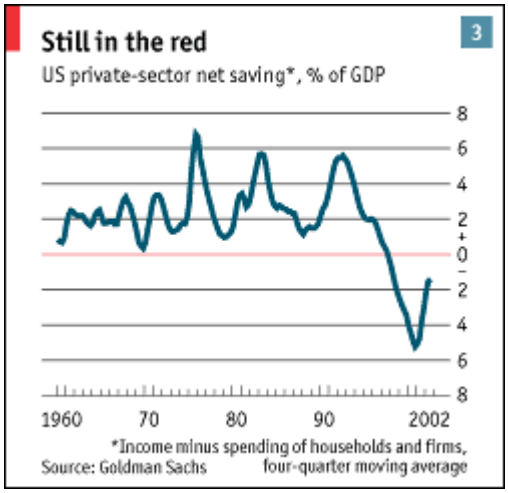
Yet despite worries about the immediate impact of a war and higher oil prices, most economists still expect America's economy, along with its stockmarkets, to rebound once the war is out of the way and the associated uncertainty lifts. For example, J.P. Morgan Chase is predicting annual growth of almost 4% in the second half of this year. This seems to assume that the recent slump in consumer and corporate confidence is mostly related to war fears. Iraq has clearly taken its toll on the economy, but there are also deeper problems that would continue to cramp growth even without a war.

The biggest is that the economic excesses created by the greatest financial bubble in history have still not been fully purged. Ed McKelvey, an economist at Goldman Sachs, argues that the main reason why private-sector spending is weak is that households and companies are still trying to correct the huge deficits that they ran up during the stockmarket bubble.

Chart 3 illustrates the problem. America's private sector was a net saver for 40 years until 1997: the total income of households and firms always exceeded their spending, with average net saving of 2.6% of GDP. But the irrational exuberance of the late 1990s encouraged a massive boom in spending and borrowing, pushing the private sector into a deficit of 5.2% of GDP by 2000. In the year to the third quarter (the latest period for which data are available), the private sector was still in deficit, to the tune of 1.4% of GDP. In other words, says Mr McKelvey, the private sector is only halfway back to its long-term average rate of net saving of 2.6% of GDP.

Firms have done much to cut costs and restore the health of their

balance sheets, but they have further to go. In the early stages of a recovery, the corporate sector usually runs a small financial surplus, investing less than cashflow. But America's companies continue to run a deficit. Worse still, profits have remained feeble. Ian Harwood, chief economist of Dresdner Kleinwort Wasserstein, estimates that profits across the whole economy, as measured in the national accounts, fell again in the fourth quarter of last year—the third quarter in a row of decline after a brief recovery. This may explain why firms are still cutting jobs.



American households have done even less to repair their balance sheets. Personal savings rose from 2% of disposable income in 2000 to 4% in the fourth quarter of 2002. But Mr McKelvey reckons that the appropriate saving rate, given the decline in households' total net worth as share prices have fallen, is somewhere in the 6-10% range.

The main reason why households have been able to postpone their adjustment is their ability to borrow—and so spend—against the rising value of their homes. But that extra cash could soon run out: even if property prices stay high and mortgage rates stay low, the scope for home-equity withdrawal will decline. Households will then have to tighten their belts. This, in turn, implies that America's growth rate could remain below potential for some time, regardless of what happens in Iraq.

The required adjustment in household saving back to normal levels can be cushioned (if not prevented) by monetary or fiscal easing. In 2002 America's economy had a fiscal stimulus worth over 2% of GDP. Without it the economy might barely have grown. This year's boost is likely to be more modest. Defence spending will increase, but President Bush's proposed tax cuts are likely to be watered down by Congress. On top of this, cuts by state governments, which are constitutionally bound to balance their budgets, are likely to offset as much as half of any easing by the federal government this year.

This increases the pressure on the Federal Reserve to cut interest rates soon. In testimony to Congress in early February, Alan Greenspan, the Fed's chairman, hinted that he would wait for a resolution on Iraq, to see if the economy then rebounds, and then cut rates if necessary. But the recent weakening of the economy argues for a rate cut now.

Another prop to America's economy is the cheaper dollar, which will boost net exports. The snag is that a weaker dollar will hurt the rest of the world. The dollar hit a four-year low against the euro of almost $1.11 this week after John Snow, America's treasury secretary, said that he was “not particularly concerned” about the dollar's decline. Europe and Japan, however, are much more concerned.

The correct response by central banks in Europe and Japan to an appreciation of their currencies is to ease monetary policy. The Bank of Japan cannot cut interest rates, which are already at zero, but it has been intervening to push down the yen. The European Central Bank, on the other hand, has more room for manoeuvre. It duly trimmed rates on March 6th, by a quarter-point, to 2.5%. But this was not enough.

Since the ECB cut interest rates in December, the euro's trade-weighted value has risen by 6%, equivalent in terms of its impact on inflation to a rise in interest rates of more than half a point. Policy has, in effect, tightened this year, even though the economic outlook has deteriorated; and the euro area's core inflation rate (excluding food, energy and tobacco) has dropped below 2%. Fiscal policy has also tightened slightly because of the straitjacket imposed by the stability pact, which is forcing Germany to increase taxes in the midst of recession. Tighter fiscal policy increases the case for monetary easing.

If the world economy does stumble, policymakers will have to act quickly. Starting from a position of ample global excess capacity, further sluggish growth, let alone a recession, could raise the risk of deflation in some countries. There is clearly a big chance of further falls in share prices: in its latest quarterly review, the Bank for International Settlements argued that, despite the war premium, America's stockmarket still looks overvalued relative to historical norms. After previous bubbles share prices have always become significantly undervalued before recovering. The economic and financial headlines could get worse before they get better.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Terrorist finance

The iceberg beneath the charity

Mar 13th 2003
From The Economist print edition

Probes uncover submerged links between charities and terrorists

Get article background

THREE years ago, an Islamic charity in Saudi Arabia gave 10m riyals ($2.7m) to an Afghan religious scholar to build a mosque, two football-fields and a school in a rural area just outside Quetta, a city in Pakistan close to the border with Afghanistan. When the charity checked the project recently, says Nawaf Obaid, a Saudi analyst, it found that nothing had been bought except a piece of barren land with rubbish on it. Most of the money had disappeared, along with the Afghan scholar. The charity fears that it found its way to the Taliban and to al-Qaeda terrorists.

People trying to track down al-Qaeda's money believe that charities are terrorists' biggest source of money. The problem arises, says David Aufhauser, general counsel of America's Treasury Department, partly because charities have outposts in areas of conflict: their networks reach out to what he calls the world's “breeding-grounds for terrorists”.

So far, though, America has confined most of its actions against charities to its own turf. Prosecutors recently charged a Yemeni cleric, alleging that he had used collections from a mosque in Brooklyn to finance al-Qaeda. In February the head of Benevolence International Foundation, a Chicago-based charity, pleaded guilty to diverting money to help Chechens to fight Russians and Bosnian Muslims to fight Serbs. America has frozen the assets of more Islamic charities, including two of the biggest in the country, the Global Relief Foundation, also in Illinois, and the Holy Land Foundation for Relief and Development, in Texas.

Tackling charities overseas, particularly in the Middle East and South-East Asia, is far harder. During the cold war, charities and private donors in Saudi Arabia and elsewhere gave money to the *mujahideen* in Afghanistan to fight Soviet troops. Al-Qaeda is thought to have taken over some of that financing network. Saudi charities are now trying to account for the money they have sent abroad in the past few years, says Mr Obaid. He reckons that some $40m-58m has gone astray.

Bowing to pressure from America, the Saudi government has introduced controls. Charities must co-ordinate all overseas donations with the foreign ministry, and a new oversight body has been established. Such moves are encouraging, says Mr Aufhauser, “but we want further assurance that there are real plans with real consequences on the ground.”

The next stage for America and its allies is to go and evaluate those consequences on the ground—in Saudi Arabia and elsewhere. In October 2001 the Financial Action Task Force (FATF), a global body set up to fight money laundering, published eight recommendations to combat terrorist financing and said it would start a process in June 2002 to take counter-measures against countries that flouted them. The FATF and the counter-terrorism committee of the UN are poised to send people out to check what countries are doing. America and its allies at the FATF have to decide where to visit first. “If we used an alphabetical list going backwards from Z,” jokes one official who is designing the process, “we could quickly get to Yemen, the United Arab Emirates and Saudi Arabia.”

If charities were to keep a closer eye on their money, a crucial source of terrorist finance could be whittled down. Many of the measures needed are quite simple. The FATF says, for instance, that charities should make field trips to verify that their money is being used properly. But the FATF and UN will not, officially, check up on charities when they visit countries, because the FATF's pronouncements on the subject are too vague to be used as a standard against which countries can usefully be judged.

Members of the FATF cannot agree even on what a charity is, and they also tend to think their own regulatory systems are best. Britain believes its Charity Commission is superior to anything in America, where charities are overseen chiefly for tax purposes. An American official boasts that “we're light years ahead of the rest of the G7.” In parts of Europe, she says, many charities are not even registered.

More profoundly, America and Europe disagree over which organisations charities should be allowed to support. The United States regards both the military and political branches of Hamas, a Palestinian Islamist movement, and Hizbullah, a Lebanese-based political and military group as terrorists. Britain and some European countries consider only their military arms as terrorists.

Most of the charities investigated so far have been Islamic, although the FATF's push will apply to all. America's Department of Justice has received and may now be investigating a report passed on from the State Department that a charity in Maryland funds affiliates of Rashtriya Swayamsevak Sangh (RSS), a militant Hindu group linked to the killing of Muslims in Gujarat last year. Britain's Charity Commission recently started investigating a charity, Hindu Swayamsevak Sangh, for links to extremist groups.

One financier of terrorism on America's list, says a British official, began by donating money strictly for refugees. It was only later that he took the step of giving to a charity that passed the funds to terrorists. A possible consequence of war against Iraq, says the official, an action that is unpopular in much of the Middle East, is that people who are today too fastidious to finance terrorism may be readier to do it tomorrow. Whether or not that happens, says Mr Aufhauser, “there is no excuse for giving money to kill people.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Derivatives

Buffetted

Mar 13th 2003
From The Economist print edition

An investor launches an attack on market opacity

AP

Sage in a rage

DERIVATIVES are financial weapons of mass destruction, opined Warren Buffett, chairman of Berkshire Hathaway, in his annual letter to shareholders last week. Mr Buffett criticised opaque pricing and accounting practices that allow companies and dealers to pick numbers to suit them when valuing positions in swaps, options and other complex products whose prices are not listed on exchanges. Credit derivatives and total return swaps, which are agreements to guarantee a counterparty against a default or bankruptcy, merited special warning: they make a joke of margin requirements, he said.

"Central banks and governments have so far found no effective way to control, or even monitor, the risks posed by these [derivatives] contracts," Mr Buffett concluded. He pointed to the concentration of risk among a handful of top dealers and the long-term nature of many contracts—"timebombs" for the parties that deal in them and for the economic system.

These words, from a much-admired investor, were met with righteous indignation from the likes of Sir Brian Williamson, chairman of Euronext.liffe, the London-based derivatives exchange, who talked of a "serious slur". Even Alan Greenspan, the Fed chairman, praised derivatives as indispensable risk management tools. He claimed that credit-default swaps had limited contagion after Argentina's default in November 2001. He agreed, though, that unlisted contracts could be traded and settled more efficiently.

Mr Buffett has a special gripe. Four years ago he bought General Re, a reinsurance company with a subsidiary, General Re Securities (GRS), that he did not want. Attempts to sell GRS failed, by which time the market was happy to trade against its known, or suspected, derivatives positions. GRS made a pre-tax loss of $173m last year and will take years to run off its portfolio. No wonder Mr Buffett is no friend of derivatives, even though he admits his company uses them to hedge some positions.

The history of derivatives is littered with disasters born of ignorance, complacency and lack of imagination at a senior level. As Long-Term Capital Management showed in 1998, derivatives make possible higher leverage, which can hugely amplify small errors. Often, investors and shareholders have been burnt by these accidents, while dealers have walked away with bonuses intact.

Some commentators fret that more accidents are coming, especially in credit derivatives. Many financial firms, especially insurers in America and regional banks in Europe, are taking on extra risk through credit-default swaps and collateralised debt obligations, whose behaviour has been less predictable than they had hoped (see article). Fitch, a rating agency, gave warning this week that there is a concentration of counterparty risk among the top ten global banks, and a lack of transparency elsewhere.

Fitch calculates that $140 billion of credit risk has been transferred from banks to insurers. But that still leaves as much as $1.2 trillion of credit-derivative risk in other parts of the system. Some of this is with European banks, notably German Landesbanks, says Fitch. Disclosure of derivative positions by some institutions that it rates has been poor. If it remains so after another three months Fitch may take

“certain ratings actions”, it says, adding that it will also have discussions with regulators. After broadsides from both Fitch and Mr Buffett in the same week, perhaps credit-derivatives users will engage in some timely self-criticism.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Collateralised debt obligations

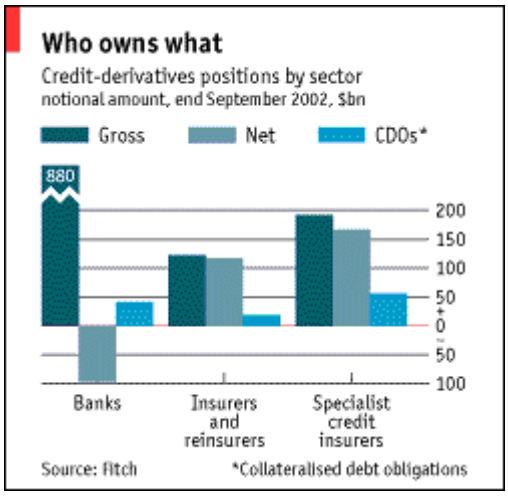
Toxic waste

Mar 13th 2003
From The Economist print edition

Investors, issuers and rating agencies wake up to yesterday's excesses

IN JULY 2001 six Barclays investment bankers dined at Petrus, a posh restaurant in London's St James's. They were so pleased with their ability to make money—for themselves and their bank—that they spent £44,000 ($66,000) on expensive wine and cigars. Most have since left Barclays, but the memories of that dinner and the deals that made it possible still haunt the bank—and its unfortunate clients.

Alongside Petrus, other Latinesque names such as Flavius, Corvus, Nerva and Tullas are the cause of the hangover; so are Dorset, Taunton and Savannah. These are all fancy titles for investments known as collateralised debt obligations (CDOs). CDOs are a clever way of exploiting anomalies in credit ratings. A number of loans or debt securities payable by various companies are put into a pool, and new securities are issued which pay out according to the pool's collective performance. The new securities are divided into three (or more) levels of risk. The lowest, equity tranche takes the first loss if any companies in the pool default. If enough losses eat that up, the next, mezzanine level suffers. The most-protected level, the senior tranche, should still be safe, unless the collective pool has severe losses.



Given the poor performance of companies in America and Europe over the past three years, and some spectacular defaults and frauds at once highly-rated companies, it is hardly surprising that many CDO debt pools have suffered. It takes only a couple of defaults in a pool of 100 companies to destroy the equity tranche. Downgrades of investment-grade corporate bonds in America were a record 22% last year, according to Moody's, a rating agency, and it recorded bond defaults of $160 billion worldwide. The equity and mezzanine tranches of many CDOs have suffered severe losses; some have been wiped out. Even senior tranches, usually rated AAA, have been downgraded because losses may yet reach them.

Flavius, Dorset et al are extreme examples. Barclays issued over $3.5 billion of CDO bonds between 1999 and 2001, of which $2.9 billion were rated AAA by Fitch, a rating agency. Today, only $128m of the bonds survive as AAA. In the meantime the underlying debtors have defaulted on at least $120m, and the value of bonds rated below investment grade has ballooned from $196m to over $1 billion. Last week Fitch put these issues on negative credit watch because of further concerns about deterioration.

Barclays has done no deals since August 2001. But more recent CDO issues arranged by the three most active banks, Deutsche Bank, J.P. Morgan Chase and BNP Paribas, have seen a similar downward trend. A report by Moody's released this month shows that only a handful of recent CDO deals have withstood the slide towards lower ratings and a weakening of the extra collateral supposed to make the senior tranches safer.

Many insurance companies that invested in CDOs, or sold guarantees to enhance the rating of the senior tranches, have had a rude shock. In America, insurers have for the first time had to mark-to-market paper losses on their CDO portfolios. Some have lost their appetite for CDOs altogether. Others that gobbled up early deals are pulling out. One is Abbey National, a British retail bank, which built up a £3.8 billion ($6.1 billion) CDO portfolio, and itself issued a CDO that included such credits as Enron and WorldCom.

The investment banks that constructed these CDOs, and the rating agencies that gave them their initial high ratings, are feeling defensive. This is now a huge business. There may be $1 trillion of CDOs outstanding. Securitisation of credit is one of the few bits of investment banking that continues to generate big fees—for arranging deals and for managing the pools of assets. The top arrangers and managers last year may have earned around $1 billion apiece in revenues. They do not want to kill the goose that lays the golden egg.

But many investors have been burned. Not even the arrangers predicted the storm that would hit the credit markets. Nor did they foresee that CDOs do not behave in step with the corporate credit market, especially the synthetic CDOs, constructed from derivatives rather than underlying credits, and the managed CDOs, in which managers can intervene daily to rebalance the portfolio. Often, their interest conflicts with that of some classes of investor.

In the Barclays case the investors have become particularly disgruntled. These are not retail buyers but supposedly sophisticated investors, some of whom issue bonds themselves. Their beef is that the deals were not transparent: Barclays did not tell investors, or the rating agencies, enough about how the assets were being managed. Barclays says it has reviewed its procedures and did nothing contrary to the terms of the deals. It may simply be that both Barclays and investors were over-optimistic. There was an unfortunate concentration of risk in sectors that turned bad, such as aircraft leasing, prefabricated housing, and even investment in other CDOs.

As this exotic market matures dealers see less advantage in keeping it opaque. Last month the recently-formed CDO committee of the Bond Market Association in New York ran a conference on CDO risk management. It will set up a sister committee in London. Rating agencies are being more candid about their mistakes and their poor record of predicting CDO behaviour. Some three-quarters of new deals may now be performing the useful function of credit-risk transfer rather than simply ripping out fees, says one risk manager.

As the exotic CDO market matures dealers see less advantage in keeping it opaque

CDOs of CDOs, or “CDO-squareds”, are becoming a secondary industry. That is because some tranches of CDOs, even those still rated AAA, are being touted at a discounted price as low as 92 cents on the dollar. Careful analysis of the assets can reveal that they are steeply underpriced. It is possible to construct new CDOs out of the debris that can yield around 8% and still merit a AA rating from a friendly rating agency. Yet if there is more trouble in the credit markets, these could end up being just as disastrous for investors. In the meantime, the reconstruction experts can still afford to dine at Petrus.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

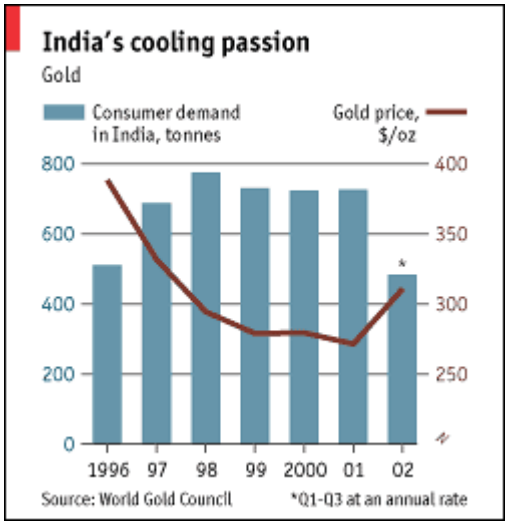
India and gold

Foreseeing the future

Mar 13th 2003 | MUMBAI
From The Economist print edition

Gold traders have nothing to lose but their chains

Get article background



JASWANT SINGH, the Indian finance minister, declared in his recent budget that his country would become the gold-trading capital of the world. That met a gloomy response in Mumbai, where most of India's gold is traded. "The gold trade is dead," was one dejected trader's response, despite a cut in import duties on gold announced on February 28th, and the removal a week earlier of a decades-old bar on futures trading in over 50 commodities, including the yellow metal.

The Indian passion for buying gold, mostly for jewellery, has cooled lately as prices have risen. Figures from the World Gold Council show that Indian consumer demand for gold fell by 36% to 363 tonnes in the first nine months of 2002, compared with 571 tonnes in the same period a year earlier. More people are now selling their jewellery than buying, says the Mumbai trader. Global manufacturing of gold jewellery fell by 12% last year to an eight-year low, because of a slump in such price-sensitive markets as India and the Middle East. But there was a marked rise in global investment demand for bullion, according to Gold Fields Mineral Services, a London-based precious-metals consultancy.

Even as a weak dollar and fear of war with Iraq have encouraged investors elsewhere in the world to buy gold, demand in the metal's biggest market has remained dull. The absence in India of speculative interest in gold is partly explained by the government's controls on trading gold futures, which were imposed in the 1960s. Most of the gold trade was illegal until the late 1990s, when import restrictions were lifted. Even then, jewellers could not hedge the price of the gold they bought for processing, and the banks allowed to import gold—such as State Bank of India, Bank of Nova Scotia, HSBC, and ABN Amro—could not trade or lend it.

There may be around 10,000 tonnes of gold in India, mostly in jewellery form, according to some estimates. That would constitute the biggest gold hoard in the world. So far, attempts to encourage consumers to make their gold work harder for them have met with little success. Four years ago the State Bank of India launched a gold deposit scheme, promising 1.25% annually for three- to seven-year gold deposits. It collected only seven tonnes, because much of the gold on offer was of uncertain quality, and because those who had bought gold with black-market money feared tax inspection.

The freeing of gold futures should encourage more European banks to enter the Indian market and so help those in the jewellery business to manage their risks better. To become a global gold hub, India needs a bullion exchange, complete with market-makers, says Savak Tarapore, a former deputy governor of the Reserve Bank of India. More important, perhaps, is the need to scotch the notion that, in a poor country, it is sinful to trade gold.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

M-commerce

Phone me the money

Mar 13th 2003
From The Economist print edition

A new attempt to get people shopping by mobile phone

WHATEVER happened to mobile internet shopping? Despite the hype during the dotcom boom, people have proved reluctant to pay for things by phone. Browsing on a mobile handset can be painful: one survey found that ordering a book took 40 minutes. But phones with colour screens are spreading fast, network speeds are improving, and people seem happy to buy such things as ring-tones, logos and games. Can they be tempted to buy cinema tickets, books and CDs too?

Last month, a consortium of Europe's leading mobile operators—Vodafone, Orange, T-Mobile and Telefónica Móviles—announced a new initiative, the Mobile Payment Services Association (MPSA), to make such shopping easier.

Previous mobile-payment initiatives have foundered on the mutual suspicions of operators and banks. The banks worry that, if mobile phones become a standard way to pay for things, operators may encroach on their territory; the operators want to keep a tight hold on their customers and ensure that they get a cut of any mobile transactions. But they also want to avoid resembling banks too closely, or they will end up being regulated like them.

Operators are wary of each other too, preferring to strike bilateral deals with content providers and online merchants. But the MPSA signals a new approach. The operators have realised that mobile payments are not a source of competitive advantage, and that they will all benefit from a single standard, says Duncan Brown of Ovum, a consultancy.

Tim Jones, the MPSA's chief executive, says the association will launch two payment services next year. The first will make possible the purchase of low-priced items (below *euro*10, ie $11) through operator-managed accounts, either prepaid or on the monthly bill, just as calls are charged today. The second allows users to register their credit-card details in advance, and then pay by tapping their personal identification numbers into their mobile phones. Conflict with the banks is avoided, since the operators' billing systems are used only for small transactions.

The MPSA aims to encourage more credit-card transactions, not to compete with them. It will plug operators into existing “merchant acquirer” organisations, which act as middlemen between financial institutions and merchants. Under the terms of the EU's e-money rules, the operators can avoid being regulated as banks provided they do not advance credit or pay interest on prepaid balances.

But do people want to shop by phone? Mr Jones is optimistic. Mobile payments should appeal to children with no bank account, he says. And they are also the best way to pay London's congestion charge.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Hedge funds in Germany

Hans-come-lately

Mar 13th 2003
From The Economist print edition

Even Germany's finance minister has begun to favour hedge funds

Get article background

Reuters

Sleeping with the enemy

HANS EICHEL used to be no friend of hedge funds. Only last year the German finance minister campaigned for a temporary ban on short-selling in times of crisis. But now Mr Eichel, prodded by a European Union directive and by worry about the flagging fortunes of *Finanzplatz Deutschland*, seems at last to see the point of allowing these investment vehicles to set up shop in Germany. Last week he proposed an overhaul of the country's antiquated investment-fund and tax laws.

"German policymakers have been backwoodsmen until now," says Caspar von Zitzewitz at TrendConcept, a fund manager in Frankfurt. Restrictive investment and tax laws followed the pyramid-selling scandal of Bernie Cornfeld's Investors Overseas Services, which went bust in 1973, hurting many small investors. The tax laws have discouraged Germans from buying financial services abroad, and also from setting up hedge funds.

Those who were determined to set up or invest in hedge funds had to devise elaborate, sometimes semi-legal, dodges. Austria's Quadriga, an investment firm, for instance, found a way to lure German investors into its commodities and financial-futures fund. Deutsche Bank launched its Xavex series, funds of hedge funds, packaged into certificates using total-return swaps.

Will there be demand for hedge funds among Germany's traditionally risk-averse investors? So far German investment in hedge funds is estimated to be only $5 billion, less than 1% of the total invested in hedge funds. But defenders of hedge funds say that they are attractive in a prolonged bear market. The DAX, the German stockmarket index, fell by 44% last year, offering plenty of opportunities to short shares. Those opportunities have continued this year.

Benjamin Schliemann, a manager of Accumulus, a fund of hedge funds in New York, is poised to set up in Germany. Mr von Zitzewitz wants to launch a hedge fund too. They hope the new legislation will come into force in January, but it still needs approval by both houses of parliament. It is likely to pass the lower house, where the government has a majority, but it may be blocked in the upper house, where it does not. And the necessary conciliation by committee could take a long time.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economics focus

Revitalising old Europe

Mar 13th 2003
From The Economist print edition

Adverse demographics demand longer working lives and Swedish-style pension reforms

DONALD RUMSFELD'S scornful dismissal of France and Germany as “old Europe” was plainly intended to cut the two countries down to size. But the American defence secretary's jibe struck a raw nerve across the continent, including the new Europe to the east that he seems to prefer. For Europe, new and old, is ageing fast.

Latest projections from the United Nations highlight the scale of the demographic changes ahead. The age of the median German today is 40, but by 2050, it will be 47; in France, the median age will rise from 38 to 45. Old Europe is getting older. But ageing is even more striking in central and eastern Europe. Over the same period in Poland, the median age will rise from 35 to 49; in Hungary, from 38 to 50. In marked contrast, the typical American today is 35; by 2050, he will be only 40.

Population ageing happens when birth rates fall and people live longer. In developing countries—whose median age is also rising sharply, albeit from a much lower base—ageing is welcome because it can give a demographic bonus to growth. The labour force increases rapidly because of past high fertility, and the number of dependants grows more slowly because of declining birth rates. Workers save and invest more because they have fewer children to raise and can expect to live longer. This demographic windfall may have accounted for as much as a third of the East Asian economic miracle between 1965 and 1990.

In developed economies, population ageing is less welcome from an economic and fiscal perspective. Unlike developing countries, which age from the bottom up because of a falling birth rate, rich countries age from the middle, adding old people with fewer workers to support them, and even fewer children to join the workforce. So they face both a shortfall in growth and a ballooning fiscal burden. The problem is more serious in Europe than in America, because birth rates have been lower.

In the 15 members of the European Union the working-age population will start to fall after 2010. Unless there is an offsetting rise in productivity or employment rates, GDP growth will suffer because there will be fewer workers. The European Commission forecasts that annual growth will decline from around 2% to 1¼% by 2040. Growth in GDP per head declines less sharply because populations start to decline, but living standards will still be 20% lower in 2050 than if there had been no ageing.

At the same time, the fiscal burden on the diminishing number of worker-bees will rise as more people turn into pensioner drones. Across Europe, the dependency ratio of older people (aged 65 and over) to those of working age (15-64) will double from one-to-four to one-to-two by 2050. This will push up public spending on pensions and health care. According to the commission, such spending in the EU will rise by five-to-eight percentage points of GDP by 2040.

One response is to try to fix the demographics. But this is hard. The age structure of the population bears the imprint of decades of below-replacement fertility: the working-age population in the EU is expected to fall by 40m over the next 50 years. At the same time post-war baby boomers are on the eve of retirement: the number of people aged 65 or over is expected to rise by 40m. So apparent antidotes to ageing, such as immigration of younger workers, would require huge inflows to make a real dent on dependency ratios. This remedy is anyway politically unfeasible, not least since it might lead to runaway population growth, as the UN spelt out three years ago. Trying to raise birth rates is difficult because people's fertility does not seem to respond much to fiscal incentives.

Europe's politically painful remedies

The best way forward, therefore, is to find economic and fiscal solutions. But they have to be realistic. Higher productivity growth could offset the effect of falling numbers of workers. However, there is less reason to expect a productivity spurt than a decline from an ageing population, because older people tend to be less entrepreneurial. Another way to prepare for a future fiscal burden is to run down public debt now. But the experience of the past few years has shown this strategy to be politically flimsy: budget surpluses have been raided to pay for tax cuts or higher public spending.

The top priority in Europe is to raise employment

The top priority in Europe is to raise employment, both by increasing participation rates among the working-age population and by deferring retirement. At present, the overall employment rate in the working-age population of the EU is 64%. This contrasts with 73% in the United States and even higher rates in Denmark, Sweden and the Netherlands. Three years ago, European leaders committed themselves at the Lisbon summit to big increases in employment rates by 2010—especially of older workers. Next week they will meet to review what progress has been made. The answer is: not much. They need to get cracking with reforms to pension systems and labour markets, rather than just talking about them.

Achieving this does not require the EU to abandon its cherished social model for the American one. But European leaders may need to look east. Countries such as Poland and Latvia have pushed through radical pension reforms based on a Swedish template, which will reduce the fiscal pressures from population ageing and encourage longer working lives.

For all their quarrels over Iraq, ageing European countries share a vital interest in international security. Investments in the developing world—boosted by funds from reformed pensions—offer a way to make future prosperity less vulnerable to the effects of ageing. The opportunity is the greater because of the demographic bonus to growth in many developing countries. But if money is to flow in earnest, more must be done for investors—whether they live in old or new Europe.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

The Marjorie Deane internship

Mar 13th 2003
From The Economist print edition

Applications are invited for the 2003 Marjorie Deane internship. This award, financed by the Marjorie Deane Foundation, is designed to provide work experience for a would-be or junior journalist under 28, who will spend three months of the summer at *The Economist*, writing about finance. Applicants should send a letter introducing themselves, with an original article of about 1,000 words intended for the finance and economics section. Applications must reach us by April 7th, and should be posted to: The business affairs editor (Deane internship), *The Economist*, 25 St James's Street, London SW1A 1HG

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Tropical forests

Not out of the woods

Mar 13th 2003 | IWOKRAMA, GUYANA
From The Economist print edition

Ardea Nick Gordon

Aid agencies are losing interest in sustainable forest management

Get article background

IN A hut in an Amerindian village, nine hours' drive from Georgetown, Guyana's capital, a young schoolteacher is modelling fish and other animals from *ballato*, a form of solid rubber gathered from sap. He sells them in Boa Vista, a nearby town. It supplements the meagre income he gets for teaching the village's 54 children. That is one modest way in which a tropical forest yields income. A few hundred metres down the Essequibo river is another: the Iwokrama field-station, a base for research and for training foresters. It trains some researchers under contract, and it attracts a few eco-tourists. But neither *ballato* modelling nor the training of researchers generates much revenue. Back up the dirt road in Georgetown is the one activity that can really pay in this vast expanse of trees: cutting them down for timber.

The world's tropical forests continue to disappear with disheartening speed. Indeed, in spite of much talk and many international efforts, the pace of deforestation appears to have been almost as high in the 1990s as it was in the 1980s, when the world woke up to the issue. The United Nations' Food and Agriculture Organisation has just published a report on the state of the world's forests which estimates that, between 1990 and 2000, Africa's forest cover declined by 0.8% a year and South America's declined by 0.4%.

Now, international attention and development aid are shifting away from forests. America's Agency for International Development has put its environment department into a bigger Department of Agriculture, giving forestry a lower profile. Canada's aid agency has got rid of the forestry adviser in its policy branch. The only senior forestry adviser in the Swiss Development Corporation is retiring, to be replaced by a part-timer. And so on. Most new World Bank forestry loans in the 1990s went to China and India: China no longer qualifies for cheap loans, and India's are threatened by squabbles between state forestry departments and environmentalists. Other aid donors are put off by the complexity of forest management and the difficulty of spending lots of money quickly. A World Bank official once famously growled, “Forestry—1% of the lending and 90% of the headaches.”

The woods and the trees

The search for sustainable tropical forestry has become bogged down in a welter of disagreement about what “sustainability” is meant to achieve and who should foot the bill. Iwokrama illustrates the problem. In 1992, borne on a wave of environmental enthusiasm, Desmond Hoyte, Guyana's president, offered the world 3,700 square kilometres (1,400 square miles) of pristine rainforest. The United Nations provided $3m to back the project, which aimed to demonstrate the sustainable use of tropical forests. As the funds have been used up, Iwokrama's donors have come to hope that sustainability might be financial as well as environmental, making money from tourism, training, and timber and other forest products. In fact, says Iwokrama's retiring director-general, Kathryn Monk, it is difficult—if not impossible—to combine financial self-sufficiency with environmental sustainability.

In most forests, the obvious source of income is timber. Logging contributes 3-6% of the GDP of tropical countries, and employs 3-8% of the workforce. But it is rarely sustainable financially, let alone environmentally. Few commercial loggers expect to cut a particular forest more than once. Most of the companies practising good forest management in tropical countries do so not in the wild but in plantations, according to Steve Bass of the International Institute for Environment and Development (IIED), a research group based in London. “Forestry in natural forests is often run by asset-strippers,” as he puts it.

Environmentally sensitive souls in rich countries, buying a new garden bench, may scour the shops for sustainably managed timber. Schemes of forest certification have been expanding rapidly, led by the Forest Stewardship Council. This body, set up in 1993 and run from Mexico, certifies forests that are managed according to certain environmental and social standards. All told, just over 1m square kilometres had been certified by January 2002, twice as much as a year earlier. But developing countries account for only 8% of the total, and their share is falling.

In temperate forests, most forestry is sustainable, in the sense that repeat rotations of felling and regrowth are possible. But temperate forests contain far fewer species of trees than tropical ones. A typical hectare of tropical forest will contain around 300 tree species. So the costs of locating and extracting a particularly valuable tree are much lower in temperate than in tropical forests.

Ownership rights, too, tend to be more complex in tropical forests than in temperate ones. Temperate forests are usually treated as assets, and have owners with clear title. Nobody actually lives in them. That allows them to be managed on a long timescale, which is the essence of sustainability. Tropical forests, by contrast, are often dwelling places, inhabited by people who rely on them for food but whose claims to ownership are based on tradition, rather than written titles. Such traditions are all too often overridden by governments. Conversely, in some tropical countries, landless individuals turn up, cut down a piece of forest they do not own, and squat on it. Who owns what is debatable. That makes conservation hard.

The political instability of many tropical countries also makes management difficult, says David Kaimowitz, director of the Centre for International Forestry Research in Indonesia. “Well over 50% of the world's tropical forests are in countries that have had violent conflict in the past 15 years,” he points out. The world's second-largest tropical forest is in war-ravaged Congo. “If you can't even manage basic governance, how are you going to keep people out?”

That creates a problem for environmental groups, such as the highly influential Conservation International, which believe that sustainability implies conserving forests in their pristine form, in order to protect the existing mix of biodiversity. The only likely way to achieve that goal is to acquire tracts of forest—and to protect them successfully from intrusion. Yet Ruth Nussbaum of Proforest, a company specialising in sustainable approaches to forestry, argues that the toughest question is “not, can we get sustainability, but can we exclude illegals?”

Besides, many foresters argue that the preserved-in-aspic approach is unnecessarily rigorous—and bound to fail. “We rarely have the option to leave things alone,” says John Hudson, senior forestry adviser to Britain's overseas-aid department. Jeff Sayer of WWF International, a green lobby group, argues that any long-term solution for tropical forests has to involve better livelihoods for those who live around and in them. Big, remote, pristine parks will not survive population and political pressures. That need not be a disaster for conservation, he says: forests that are well managed for timber also afford good protection to biodiversity. The range of preserved species may be smaller, but “there is very little evidence that, if one species goes, so will lots of others.” It may also be wiser to think in terms of managing a landscape, rather than forests alone.

Some hope that new sources of income will make it possible for tropical forests to combine financial and

environmental sustainability. A whole range of markets has recently emerged, in which agencies such as local governments and international donors pay for four kinds of forest environmental services: watershed protection, protecting biodiversity, mopping up carbon and preserving landscape beauty. But an analysis* of these by the IIED recently drew attention to their many weaknesses. Markets work well only with clear governance, something that many developing countries lack. Also, they may exclude the poor, or may concentrate on protecting one commodity at the expense of others.

As so often with the environment, doing harm is easy. Knowing how to put things right is hard; and actually doing it harder still. But if donors give up, forests will be left to green extremists and logging companies. That would be worse.

---

* "Silver Bullet or Fools' Gold? A Global Review of Markets for Forest Environmental Services and Their Impact on the Poor." By Natasha Landel-Mills and Ina Porras. IIED March 2002.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Evolutionary psychology

Pro bono publico

Mar 13th 2003
From The Economist print edition

The evolution of punishment explained

HUMANS, unlike most other animals, often co-operate with individuals to whom they are unrelated. That puzzles evolutionary biologists. It means they have to explain the spread of genes which cause an individual to engage in altruistic activities that are costly to perform, and yet benefit only others. The usual assumption is that favours will be repaid. The question is how, given the number of cheats and freeloaders around, that repayment can be relied on. And one of the answers is to punish the cheats.

However, imposing punishment, too, is costly—often, it seems, more costly than an individual's own interests could justify. So the problem is merely pushed back a step. There still needs to be an explanation for the evolution of this so-called altruistic punishment.

Robert Boyd, an anthropologist at the University of California, Los Angeles, and his colleagues, think they have found it. In a paper just published in the *Proceedings of the National Academy of Sciences*, they discuss a series of computer simulations that show how, once they appear, genes for altruistic punishment tend to spread.

Dr Boyd modelled 128 groups of individuals who, together, constituted a “virtual” society. He then let his model society evolve. There were two distinct evolutionary pressures at work. Individuals competed with one another in a classic Darwinian manner. But entire groups competed as well. In Dr Boyd's model (as in the real world), these two pressures tended to work in opposite directions.

Each group comprised individuals who adopted one of three behavioural strategies. “Co-operators” helped the group to improve its fitness at the expense of their individual rewards. “Defectors” willingly accepted the help of others, but did not reciprocate. “Punishers” behaved like co-operators, but also punished defectors at a cost to themselves.

At first, the researchers ran their model without including punishers in it. In this case, when the groups were small (four individuals per group), co-operators came to dominate. Freeloading off other group members is not a great strategy when the others are few in number. Co-operation, by contrast, helps everybody in the competition with other groups. When the groups were larger, though (up to several hundred individuals), defecting came to dominate. In this case the benefits conferred on an individual by defecting outweighed the cost to the group. Which is where punishment came in.

Dr Boyd showed that when punishers were introduced to the mix, even if they started in only one group, their strategy spread rapidly through the population. The benefits to a group of having punishers to keep defectors in check outweigh the cost to individual punishers. This is particularly true when defection is rare, as the cost to punishers is then lower. And because defection does not pay when punishers are common, it tends to be rare—a virtuous circle.

So much for the theory. But it also seems to illuminate reality. Modern hunter-gatherer societies, which are assumed to be similar to those of early man, have a maximum size of 150-180 people. Without punishment, the computer simulations suggest that co-operation would have died out in groups of this size.

There is a long way to go, of course, before computational anthropologists can accurately simulate human societies. Dr Boyd hopes to move a bit in that direction by making the models of both individual behaviour and group structure more complex. For example, the existing model has no geography. All the different groups are thus equally likely to encounter each other. However, the model can already say something interesting about what might have happened hundreds of thousands of years ago. And that is

no small feat.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Early humans

Footprints in the ash of time

Mar 13th 2003
From The Economist print edition

The oldest human spoor

Early-man Friday

THIS footprint was made some time between 385,000 and 325,000 years ago by an early inhabitant of southern Italy. It is part of three sets of tracks that are the oldest human footprints known. They were planted in what was then fresh volcanic ash in what is now the region of Campania.

At that time, *Homo sapiens* did not exist. The human world had been dominated for about 2m years by a species called *Homo erectus*, which had spread across Africa and parts of Eurasia. But the reign of *erectus* was coming to its end 400,000 years ago. The various populations of the species were evolving apart from each other. Europe was inhabited by *Homo heidelbergensis* and by early examples of *Homo neanderthalensis*. Paolo Mietto, of the University of Padua, and his colleagues, think the Campanian tracks were made by early *neanderthalensis*. Remains of this species have been found in several places in Italy, including Circe's grotto, a site north of Campania where the legendary witch of that name is supposed to have lived.

Dr Mietto did not actually discover the tracks. They are well known locally, and are referred to as the devil's trails. But his report in the latest issue of *Nature* is the first to put a date on them.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Mining and microwaves

Rock on

Mar 13th 2003
From The Economist print edition

A new way of extracting valuable minerals

MICROWAVING a lump of rock might sound a bizarre idea, but if Sam Kingman of Nottingham University, in England, is right, it could save mining companies a lot of money. Dr Kingman claims that some 3-5% of the world's electricity is used to grind up rocks to release the useful minerals they contain. Most of that energy is wasted, ending up as heat and noise.

Dr Kingman has spent the past seven years perfecting his recipes for microwaving rocks. He has found that microwaving ore-bearing rocks can disintegrate them as effectively as grinding them up, but at half the cost in energy. Since that cost accounts for over half the operating costs of a typical mine, the result could be a big saving.

The technique works because minerals respond differently to microwaves. Some, such as copper sulphide, absorb microwaves well and heat up fast when exposed to them. Others, such as quartz, are almost transparent to microwaves, so hardly heat up at all. This differential heating creates cracks in a rock, encouraging it to fall apart into its constituent grains.

Of course, it is not as simple as that. Each rock type requires a different microwave recipe, for there are many subtleties involved. The frequency, intensity and timing of the microwaves used is crucial. Apply too little energy, or the wrong sort, and the grain boundaries will not crack. Apply too much, and the properties of the minerals may be changed in ways that make them harder to process afterwards.

To calculate the optimum way to microwave different rock types, Dr Kingman and his team use computer simulations. These allow them to arrive at what looks like the best combination of frequency, intensity and timing, without having to conduct costly and time-consuming experiments. Only when the optimum for a particular rock type has been worked out is a lump of that rock actually put in the oven (or, rather, in a high-powered microwave cavity), to find out if the computer was right.

Most rocks require only a quick blast of microwaves—sometimes less than a quarter of a second. This is just enough to weaken a rock's structure, so that it falls apart easily when thrown into the grinding mill. An extra benefit is that the way microwaves cause rocks to crumble enables more of the valuable minerals in them to be recovered than traditional grinding would. This means that mines whose ore is too poor to be worth working when metal prices are low might now be worked more often than in the past. And that is a recipe miners can savour.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

New fiction

Love's orbit

Mar 13th 2003
From The Economist print edition

Siri Hustvedt has long been regarded as something of a cult novelist. Her third book should finally win her the wider readership she deserves

WITH her latest novel of ideas, the Minnesota-born writer, Siri Hustvedt, joins a band of brainy contemporaries which includes Milan Kundera, Umberto Eco and Michel Houellebecq. “What I Loved” is a self-consciously clever piece of work, brimming with ideas about love and memory, perception and change. It also tells a moving and, in the end, gripping story.

The narrator is a retired professor of art history called Leo Hertzberg. Leo says he no longer thinks of himself as an actor in his own story, but as an audience member who has chosen to speak up. And speak up he does. Tirelessly. His eyes may be failing but he has the memory of an elephant.

Leo begins his reminiscences in the mid-1970s, when he buys a painting by an up-and-coming New York artist, Bill Weschler. Later the two men meet. In time they and their wives—Erica, another academic, and Lucille, a poet—become good friends. They even move into the same apartment building on Greene Street. Their sons are born within a few weeks of one another.

What I Loved
By Siri Hustvedt

Henry Holt; 370 pages; $25.
Sceptre; £14.99

Buy it at
Amazon.com
Amazon.co.uk

Then Bill falls in love with another woman, Violet, an artist's model. Where Lucille is brittle and highly strung, Violet is as passionate and earthy as Bill is, though she comes with serious scholarly credentials, as a budding expert on hysteria and eating disorders. Bill tries to hold his family together, but ultimately he cannot resist. He abandons Lucille and his son, Mark, to live with Violet, whom he later marries.

Bill's reputation grows steadily through the 1980s, and he becomes an artworld celebrity. Meanwhile, Violet, Leo and Erica churn out books, essays and conference papers at an impressive rate. The years pass. But everything changes for Leo and Erica when their 11-year-old son, Matt, dies in a boating accident. The parents are inconsolable. Their marriage falls apart. Erica moves to California, while Leo slowly gravitates towards Mark, Violet and Bill.

As Leo writes all this down, he interprets his family life and friendships in the coolly analytical way he would a painting. Past events and conversations serve as springboards from which he leaps off into long passages of wordy rumination. Often these pages are illuminated within triguing perceptions, as when he suggests that “love thrives on a certain kind of distance...it requires an awed separateness to continue.”

However, like many of the other characters, Leo is a card-carrying New York intellectual, temperamentally incapable of boiling an egg without pondering its existential implications or reflecting on the latest Brancusi show at the Met. Such creatures do exist, and Ms Hustvedt should know how toe-curlingly pretentious they can sound: “Why was she telling me this? Had she enmired herself in a semantic riddle—what does love mean?—or was she confessing a lack of feeling? Why did she describe deeply personal, even humiliating stories as if they were puzzling exercises in a beginning logic textbook?” There is a lot of this in the first third of the novel, but it is worth keeping faith. As it goes along, “What I Loved” only gets better.

After Matt's death, the tone changes and the novel develops in surprising ways. Ms Hustvedt manages to wring a great deal of pathos from the breakdown of Leo's and Erica's marriage without ever getting mawkish. And the last hundred pages or so, which focus on Leo's relationship with Mark, who has grown up to become a deceitful and possibly murderous teenager, have the turnability of a good thriller.

Much of the best writing in the book is about creativity. Ms Hustvedt gives a clear sense of her characters' inner lives with reference not just to the things they say or do, but also to their work. This is especially important with Bill. There are detailed descriptions of his art, from the quirky early portrait that caught Leo's eye to his increasingly conceptual collages, installations and video pieces. His work changes as he changes. Ms Hustvedt subtly and convincingly captures the interplay between Bill's artistic life and his everyday life as a husband, a parent and a friend.

Ms Hustvedt's previous two novels, “The Enchantment of Lily Dahl” (1996) and, before that, “The Blindfold” (1992), were slick and stylish: accomplished if not very substantial. “What I Loved” is much richer. It should consolidate her reputation as an ambitious and original talent.

What I Loved.
By Siri Hustvedt.
Henry Holt; 370 pages; $25.
Sceptre; £14.99

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

American gamblers

How they made their luck

Mar 13th 2003
From The Economist print edition

INVETERATE gamblers playing the slot machines in an American casino are often reluctant to take a break lest they miss a big pay-off. Some, indeed, are so loath to relinquish their place that, when nature calls, they urinate on the floor next to the slot machine or into the plastic coin cups supplied by the casino. Others, more prudent or more fastidious, wear adult diapers. Nor is trust in luck in the United States confined to such obsessives. Young Ralph Ellison, later a famous author, bought Sigmund Freud's “The Interpretation of Dreams” on the assumption that it would help him win the lottery.

Something for Nothing: Luck in America
By Jackson Lears

Viking; 392 pages; $27.95 and £17.50

Buy it at
Amazon.com
Amazon.co.uk

Jackson Lears, a professor of history at Rutgers University, New Jersey, presents these as examples of a seditious tradition. Throughout the country's history, he argues, gamblers have always challenged “an American creed: the faith that we can master chance through force of will, and that rewards will match merits in this world as well as the next.” By putting their faith in numbers, horses and playing cards, gamblers assert, in effect, that luck matters in life, and that net worth has little or nothing to do with moral worth.

In the 18th century, respectable folk were shocked by the way people of all classes and colours mingled promiscuously at cockfights. In the 19th century, they shivered excitedly over the big bets that John “Bet-a-Million” Gates, a barbed-wire magnate, made on which of two raindrops would hit the windowsill first, and over the misdeeds of Doc Holliday, who spent his short violent life in the Wild West drinking hard, dealing cards and pulling knives and guns on anybody who accused him, correctly or not, of cheating.

But gambling was mostly tolerated. It was not until the 20th century, from roughly 1910 to the 1970s says Mr Lears, that anti-gambling laws were fiercely enforced in America, with small gamblers suffering more than big ones, who could afford to bribe the police to relax their surveillance. It is, he thinks, not entirely coincidental that this period also saw the apogee of the business culture of mass production and managerial control. Inspired by Frederick Winslow Taylor, the father of scientific management, industrialists then wanted reliable assembly-line workers, loyal settled folk who accepted labour discipline and domestic responsibilities. Employees who were, in fact, everything that gamblers are not.

The laws against gambling loosened once the climate began to favour greater risk-taking. During and after the Reagan era, re-engineering the corporation became the mantra of executives, who celebrated flexibility (“we eat change for breakfast” was a typical advertising slogan) as well as spontaneity and chance. Employees were urged to be dynamic too, and to stop worrying about job security. Mr Lears doubts that executives were quite as intrepid as they claimed—or as they urged their workers to be—even in the boom years. The most prominent celebrants of economic uncertainty, he notes laconically, are often safely insulated from it themselves.

Such a brief, stark summary of one of his explorations of possible cause and effect does not do justice to the subtlety, density and intelligence of his argument. This book has a serious, even a moral, purpose. In examining the interplay between gambling and the wider culture in America, Mr Lears, a humane man, seeks to underline how fitfully and unpredictably people get what they deserve in life. “A recognition of the power of luck might,” he hopes, “encourage fortunate people to imagine their own misfortune and transcend the meritocratic myth.”

Something for Nothing: Luck in America.
By Jackson Lears.

Viking; 392 pages; $27.95 and £17.50

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

Masturbation

One and only

Mar 13th 2003
From The Economist print edition

SINCE no subject today seems to be wanting for a cultural history, no subject is unimaginable. Not even masturbation, even though it is as close to a sexual taboo as you can get in the 21st century.

Thomas Laqueur, a history professor at the University of California, Berkeley, delivers his most penetrating observation in his penultimate footnote (and there are 70 pages of them). “In general, masturbation is that rare thing in modern talk about sexuality: something best left unspoken and so discomfiting that it can only be broached by a joke,” he writes. Bill Clinton sacked his surgeon-general for saying the dread word at a press conference, which is a joke, surely.

Solitary Sex: A Cultural History of Masturbation
By Thomas W. Laqueur

Zone Books; 502 pages; $34 and £22.50

Buy it at
Amazon.com
Amazon.co.uk

Mr Laqueur reports that, in the experiences of pollsters, only personal income provokes as much reticence. Yet masturbation is a common, if not shared experience, in both men and women. The author covers everything there is to say about the subject, often saying it twice or even three times. We learn that to describe it as onanism is to misread Genesis. Onan spilled his seed on the ground, not as an act of solitary sex, but because he did not wish to impregnate the wife of his late brother. The biblical reference gave his name to a book published in 1712 and titled “Onania”, a clever concoction of salacious case studies of the act, coupled with stern disapproval of it. The book went through many editions; both author and publisher made a decent profit; Mr Laqueur identifies it as a landmark in masturbation studies because its publication defines the moment when solitary sex “moved from the distant moral horizon to the ethical foreground.”

Masturbation was denounced by teachers, doctors and churchmen as the vice of vices, punished by dreadful physical symptoms, from desiccated limbs to blindness. To prevent it, specialist manufacturers offered erection alarms, penis cases, sleeping mitts and hobbles to stop girls from spreading their legs. Freud was exercised by it throughout his life. But the medical case against masturbation did not survive beyond the 1920s, and by the end of the century it had become, in some circles, “a model of self-sufficiency, moral autonomy and freedom from the overweening power of patriarchy and heterosexuality.” It was especially respectable in feminist and gay circles.

At the start of a new millennium masturbation supports profitable businesses selling pornography and vibrators. One thing cultural history shows is that there really is nothing in the world from which ingenious people won't make money.

Solitary Sex: A Cultural History of Masturbation.
By Thomas W. Laqueur.
Zone Books; 502 pages; $34 and £22.50

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

New films

Monty's wake

Mar 13th 2003 | LOS ANGELES
From The Economist print edition

A spiky American poet sings for his country

HAS Spike Lee become America's cinematic poet laureate, like John Ford before him? Mr Lee can sometimes be regarded as simplistic by critics who believe that the characters in his films speak for him—the same misunderstanding that plagues Mr Ford to this day. But when we look back 20 years from now, it is likely that we will see in Spike Lee's films the cinematic history of our times, made into lasting art.

America is a nation of immigrants, and Mr Ford's national epics often showed American history through the eyes of Irish incomers, although he did make one film with a black hero, Sergeant Rutledge. Mr Lee, a New Yorker, usually shows America through the eyes of its most disadvantaged citizens, African-Americans. But his new film, “25th Hour”, is about Irish immigrants in New York. Due to open in Britain and across continental Europe over the next few weeks, it is easily one of his finest achievements.

Monty Brogan (Edward Norton) is in purgatory, en route to hell. A likeable working-class kid who has done well selling heroin for the Russian mafia, Monty has been “touched”, a street word for busted, and is waiting to go to prison where he has been sentenced to remain for the next seven years.

Because New York state's prisons are bursting at the seams with casualties from America's war on drugs, offenders who are lucky enough to get bail are allowed to remain at liberty until their sentences begin. That is the strange limbo in which Monty finds himself during the 25 hours before he is due to start serving his time.

Joining Monty in mourning for his life are two childhood friends, Jake (Philip Seymour Hoffman), a nerdy teacher, and Frank (Barry Pepper), a high-octane stockbroker. In one of the film's most talked-about scenes, Frank and Jake, before going to meet Monty at his favourite club, stand by a window in Frank's townhouse looking out over Ground Zero, where night is descending and the earth-moving machines are crawling about like beetles. The haunted atmosphere of Manhattan is reinforced by Terence Blanchard's score, which swells on occasion to include a full-throated choir.

The film is adapted from a novel that was published before September 11th. But Mr Lee and David Benioff—who wrote both the novel and the screenplay—have set “25th Hour” in the period immediately after the attack, and the cinematographer, Rodrigo Prieto, has filmed New York in bleached colours to suggest a city covered with ashes. Ground Zero is the expressionistic backdrop for the conversation between the two friends, during which Jake is made to face the fact that Monty has probably been handed a death sentence.

If Mr Lee were a propagandist, telling Monty's story would be a smart way to get white audiences to think about the laws that have filled America's dangerous, overcrowded prisons with a disproportionately large number of non-violent drug offenders who are black. But the film-maker lets no one off the hook, least of all Monty—in an early scene we see him with a strung-out ex-customer who is probably another one of his childhood friends. The heroin they are trading is likely to end up destroying a kid's life if it doesn't kill him outright first. During the conversation overlooking Ground Zero, Frank shocks Jake by angrily proclaiming that Monty “had it coming.” These are not the words of a propagandist.

In the morning Monty's father (Brian Cox) drives him to his grim appointment. We have seen this character just once before, when Monty dropped by his bar to say goodbye. But during the drive we learn that the bar will be seized by the state authorities if Monty flees, and we realise that the father may have insisted on accompanying him to prison to make sure he doesn't.

Like Monty, we would prefer to believe the dream that ends the film, in which his father drives him instead to some little western town where he can change his name, grow old and raise a family. Such are the unstated complexities in the relationship between father and son that when the last shot returns to reality the viewer finds it hard to slough off those Edenic images of the American heartland as freedom's last refuge. For a moment they recall the end of two earlier Spike Lee works—“Clockers” and “He Got Game”. Those are the two films this dark threnody most resembles. Together with “25th Hour”, they are also the films that have earned Mr Lee his poetic mantle.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

The Academy Awards

Screen calculus

Mar 13th 2003
From The Economist print edition

Back-of-an-envelope stuff

Get article background

AP

THE smart money in the Oscar race is generally on the likeliest winner rather than the worthiest. That means disregarding personal preference and trying to grasp the mindset of the Academy of Motion Picture Arts and Sciences (AMPAS), which confers the awards. AMPAS members are old industry hands, not critics, and old is the operative word. Their tastes are conservative and when they vote, they are saying “Gosh, I wish I'd done that.”

This year's Oscars, due on March 23rd, began with no lead runners, but a consensus is emerging. The best picture award will surely go to “Chicago”, not because it is the best but because it is the one with which AMPAS will feel most comfortable. A Broadway musical adaptation, it is the kind of film Hollywood thinks it does well. “My Fair Lady”, “The Sound of Music”, “West Side Story” and “Oliver!” are all past winners in this genre.

Ranged against it are “Gangs of New York” (too violent), “The Hours” (too arty), the second bit of “The Lord of the Rings” (part two of an unfinished trilogy) and the Holocaust film, “The Pianist”, which will be seen as being too similar to “Schindler's List”, not to mention that its director, Roman Polanski, is a convicted felon who skipped bail and fled the country.

In Hollywood's eyes, that must rule him out as best director, too. The other contestants match the best film nominees except for Spain's Pedro Almodóvar—pictured left giving thanks—who slips in for “Talk to Her”. Foreign directors, such as Bernardo Bertolucci and Milos Forman, have won before, but never for a film not in English. Sorry, Pedro.

Oscars usually go to the director of the best picture and Rob Marshall, who made “Chicago”, has already won the Directors Guild of America award. The prize is voted for by virtually the same constituency as the directors' branch of AMPAS, and divergent views are rare.

There has been a popular swell behind Martin Scorsese for “Gangs of New York” because he has never won best director and is thought to be overdue. But he has done better, less sprawling work and AMPAS voters may prefer to wait for a more suitable occasion. Britain's Stephen Daldry, who made “The Hours”, is the outsider for a film that will be seen mainly as a thespian triumph.

It should collect a clutch of acting awards, though. Despite the nose job, Nicole Kidman's Virginia Woolf does not look like the author, but she projects an interpretation of this evidently difficult woman that brings the role memorably to life. Ms Kidman might have won last year if nominated for “The Others” rather than “Moulin Rouge!”; this year she looks unbeatable against Renée Zellweger (“Chicago”), Diane Lane (“Unfaithful”) and Salma Hayek (“Frida”).

There's an Oscar tradition of the awards for best actress and supporting actress coming from the same film. Think of Vivien Leigh and Kim Hunter in “A Streetcar Named Desire”, Anne Bancroft and Patty Duke in “The Miracle Worker”, and Holly Hunter and Anna Paquin in “The Piano”. This year may follow suit.

Although Julianne Moore is nominated as best actress for “Far From Heaven”, she is also up for best supporting actress for “The Hours”. With simultaneous nominations, the award generally goes to the supporting performance—witness Teresa Wright in 1943 for “Mrs Miniver” rather than as best actress for “The Pride of the Yankees”.

Ms Moore's only serious rival as best supporting actress is Meryl Streep in “Adaptation”, but she has won twice before and Oscar likes to spread its bounty. A better bet from this film is the popular Chris Cooper as best supporting actor.

Multiple previous wins may also count against Jack Nicholson as best actor for “About Schmidt”. Nobody disputes the quality of his performance, but is he delivering more than an older, seedier version of his winning work in “As Good As It Gets”? And that was his third Oscar.

If Michael Caine wins for “The Quiet American”, he would also become a three-times winner, while Nicolas Cage (for “Adaptation”) would be a doubleton—or is it a tripleton, since he plays twins? The doubleton likely to win is Daniel Day-Lewis for “Gangs of New York”. His 19th-century proto-gangster is one of those performances that hit AMPAS voters in the solar plexus. Charles Laughton as Henry VIII, Lee Marvin and Peter Finch have done so before. And it cannot hurt that when he last won an Oscar, Mr Day-Lewis looked so very different as the palsied paraplegic, Christy Brown, in “My Left Foot”.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

About sponsorship

China's great Oscar hope

Best foot forward

Mar 13th 2003 | BEIJING
From The Economist print edition

My emperor, right or wrong

Get article background

MAO ZEDONG tried to promote Emperor Qin Shihuang as a hero who was quite right to bury alive dissenting intellectuals. A new film promotes the current official view of the builder of the Great Wall: a harsh but principled ruler with the best interests of his subjects at heart.

For toeing the party line, Zhang Yimou's “Hero”—a kung fu extravaganza—has had access to $31m, a bigger budget than any film previously made in China. With additional support from Miramax, which was one of the original investors and is now in charge of its distribution in America, “Hero” has been nominated for an Oscar as best foreign language film.

Mr Zhang is known for “Raise the Red Lantern” (1991), “The Story of Qiu Ju” (1992) and “To Live” (1994), all films that told of personal suffering in China. In recent years, though, he has also made films promoting the government's bids to stage the 2008 Olympics in Beijing and the World Expo in Shanghai in 2010. If he was once a critic, he is now a loyalist. One of the main themes in “Hero” echoes the slogan repeated so often by the Communist Party to justify its clampdown on dissent: *wending yadao yiqie*—stability is of paramount importance. Mr Zhang was appointed a government adviser in 1998.

Amid official praise for “Hero”, there have been a few dissenting views in the state-controlled media. The English-language *Shanghai Star* reported a poll in which nearly half those asked said they were disappointed by the film. The emperor “known for persecuting intellectuals and free thought and engaging his kingdom in long and wide wars” promises to usher in a reign of peace, the newspaper observed, concluding: “No wonder the audience laughed.”

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

PRINTABLE PAGE VIEW SPONSORED BY

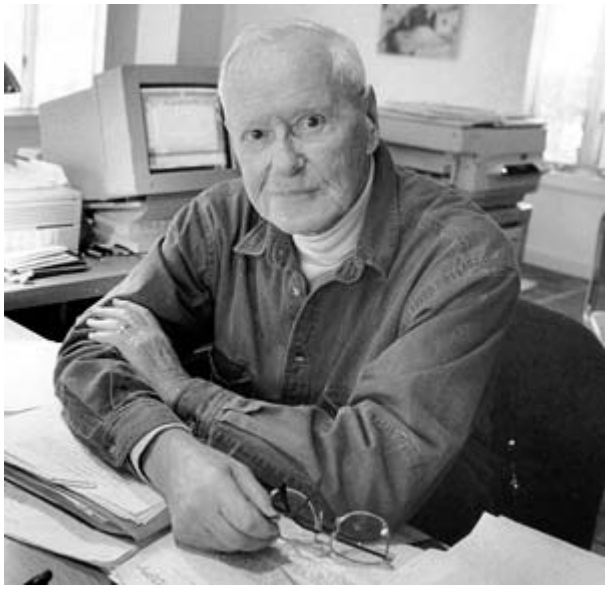
About sponsorship

Robert Merton

Mar 13th 2003
From The Economist print edition

Robert King Merton, inventor of the focus group, died on February 23rd, aged 92

Michael Shavel 1995



BY THE 1940s almost every home in the United States had a radio; sometimes there were several. The industry was getting rich from advertising linked to popular programmes. What it sought was a reliable way of measuring popularity to ensure that advertisers were paying enough. In 1941 Paul Lazarsfeld, a statistician at Columbia University in New York, got together a group of people representing a typical radio audience and gave them some buttons to press as they listened to various programmes. He was then able to work out which programmes had the most appeal. Helping him at these sessions was Robert Merton, who had recently joined Columbia. At the end of each session Mr Merton asked any in the group who did not need to dash away to stay behind and discuss the radio shows in some detail: they should focus on why they had liked this bit of the show, and not that.

Although it is risky to claim that anyone invented anything, it is generally accepted by sociologists that Mr Merton's were the world's first focus groups, a research tool now used widely in commerce and increasingly in politics. Nor have focus groups changed much since the Merton model. A typical group will have six to nine people, enough to keep the discussion flowing over a period of perhaps two hours, but not unwieldy. It will be managed by an expert who will encourage flexibility but keep in mind the information that the group has been set up to provide.

Mr Merton said wryly he wished he could have collected royalties on focus groups, but he never saw them as the highlight of his life's work. His great achievement in a career of some 70 years was to help to establish sociology as a major scientific discipline. By posing the question, “How does this come to be so?” he sought to examine human behaviour without prejudice. The benefit he offered to the world was new thinking on criminality, racism, the mass media, social cohesion, power, fame, rewards, class, bureaucracy...it is a long list. He also wrote well and composed a number of memorable phrases. Every time you speak of “role models” you are quoting Mr Merton.

Culture of the streets

He was the son of immigrant parents from Eastern Europe who had settled in a rundown district of Philadelphia. In a lecture in 1994 he recalled how “that seemingly deprived south Philadelphia slum”

provided him with a good start in life. He had friendships in a youth gang, and access to culture in the local libraries, schools and orchestras, “every sort of capital” except money. This problem he met by performing conjuring tricks at parties, calling himself Robert Merlin after King Arthur's magician. But he had his own sort of magic that lifted the lad from the slums through the American educational system to eventually a scholarship to Harvard, where he gained a doctorate. In the 1930s he taught at a number of colleges before coming to Columbia, where he stayed for 44 years, much of the time working on ways to apply sociology commercially with Paul Lazarsfeld, who died in 1976.

Several of Mr Merton's students who later made important careers in sociology have written about his presence in the lecture room. Asked to estimate his height, students would guess up to 6ft 4in. In fact Mr Merton was tall, 6ft 1in, but not a giant, except in the minds of his awed students. He certainly disciplined himself, usually starting work shortly after four in the morning, surrounded by those of his numerous cats that had woken up. But although it helped a teacher to have an easy command over his pupils, Mr Merton was suspicious of authority; and indeed of the nature of fame.

He wrote that many scientists, such as Newton and Galileo, were famous partly because they had been portrayed as rebels, but in fact their genius had been adapted to the needs of their time. He approved of the aphorism that progress is made by standing “on the shoulders of giants” (which became the title of one of Mr Merton's 20 or so books) but said the author was a 12th-century theologian, Bernard of Chartres, not Isaac Newton, who usually gets the credit.

Mr Merton noted that lots of people miss out on credit or other socially-approved prizes such as wealth, power and status. In writing about what he called “strain theory” he examined the problems of an unequal society, particularly the rise of the “innovators”, those who turned to crime to achieve “social goals” denied them by legitimate means. The solution Mr Merton offered was a programme to help the “disadvantaged”, which had a run of popularity in American and some European countries in the 1960s onwards, but is less fashionable now.

In Mr Merton's own academic world, he favoured the idea of a “41st chair” to symbolise talented scientists who should have been awarded a Nobel prize (the Académie Française, Mr Merton noted, limits the number of its “immortals” to 40). But he rejected the idea that he should occupy the chair, although had there been a Nobel for sociology, Mr Merton would probably have added it to his many honours. He was a modest man. His son, also called Robert, won the Nobel for economics in 1997. Merton senior sometimes signed his letters “father of the economist”.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Overview

Mar 13th 2003
From The Economist print edition

Stockmarkets around the world fell sharply, as investors grew more nervous not only about a war with Iraq, but also about signs that the American economy is stalling. The biggest declines came in Europe: Amsterdam fell by 14% over the week, Frankfurt by 12% and London by 8%. All fell to their lowest levels since the stockmarket bubble burst. Germany's DAX is now 73% off its peak. Japan's Nikkei fell by 6% to a new 20-year low. By comparison, Wall Street's losses were relatively modest: the S&P 500 fell by 3% over the week, leaving it 47% below its March 2000 peak.

America published one of the most worrying of recent economic statistics. Total payroll employment slumped by 308,000 in February. Some of that was caused by bad weather and the call-up of army reservists, but it also suggests that cash-strapped firms are laying off workers again. The jobless rate edged up to 5.8% of the labour force. That is only a little higher than the 5.6% rate of a year ago, but that is partly because many of those without jobs have left the labour force rather than register as unemployed.

Japan's GDP growth was revised up to 2.8% in the year to the fourth quarter, only a whisker behind the United States (2.9%), and leagues ahead of the euro area's miserable growth rate of 1.3%. However, all is not rosy: Japan's nominal GDP rose by a paltry 0.3% over the same period. Japanese retail sales fell by 2.4% in the 12 months to January.

Germany's industrial production rose by a stronger-than-expected 1.6% in January, but the monthly figures are volatile: production slumped by 3.5% in December, so output is still 0.2% lower than a year earlier. **British** industrial production fell by 0.7% over the same period.

America's **merchandise-trade deficit** narrowed to $44.8 billion in January, thanks largely to a fall in imports. It was still the second-biggest deficit on record. Japan's trade surplus shrank in January to its smallest for more than a year, as a stronger yen started to bite.

Switzerland's unemployment neared a five-year high of 3.9% in February. Last week the Swiss National Bank surprised financial markets by cutting its key interest rate by half a point, to 0.25%. A sharp rise in the Swiss franc has been hurting exporters.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Output, demand and jobs

Mar 13th 2003
From The Economist print edition

% change on year ago

	GDP		The Economist poll GDP forecasts		Industrial production		Retail sales (volume)		Unemployment % rate	
	1 qtr*	1 year	2003	2004	latest		latest		latest	year ago
Australia	+ 1.6	+ 3.0 Q4	+ 3.1	+ 3.4	+ 1.6	Q3	+ 5.4	Q4	6.0 Feb	6.6
Austria	+ 0.3	+ 1.2 Q3	+ 1.2	+ 2.0	– 1.5	Dec	+ 0.9	Dec	4.1 Jan	3.9
Belgium	+ 0.8	+ 1.6 Q4	+ 1.3	+ 2.3	– 0.8	Dec	– 4.9	Dec	11.8 Feb†	10.8
Britain	+ 1.3	+ 2.1 Q4	+ 2.2	+ 2.7	– 0.7	Jan	+ 4.2	Jan	5.1 Dec††	5.2
Canada	+ 1.6	+ 3.9 Q4	+ 3.0	+ 3.3	+ 5.6	Dec	+ 1.4	Dec	7.4 Feb	7.9
Denmark	– 0.1	+ 0.9 Q4	+ 1.8	+ 2.4	– 1.7	Dec	+ 2.4	Dec	5.4 Dec	5.1
France	+ 0.9	+ 1.7 Q4	+ 1.4	+ 2.4	– 0.1	Dec	– 1.9	Dec	9.1 Jan	8.8
Germany	– 0.1	+ 0.5 Q4	+ 0.5	+ 1.9	– 0.2	Jan	+ 1.3	Jan	10.5 Feb§	9.6
Italy	+ 1.7	+ 1.0 Q4	+ 1.2	+ 2.2	+ 2.1	Dec	+ 1.9	Nov‡	8.9 Oct	9.3
Japan	+ 2.2	+ 2.8 Q4	+ 0.5	+ 0.6	+ 1.5	Jan	– 2.4	Jan	5.5 Jan	5.3
Netherlands	+ 0.4	+ 0.3 Q4	+ 0.8	+ 2.2	– 6.8	Dec	– 2.5	Dec	4.3 Jan**	3.4
Spain	+ 1.4	+ 2.1 Q4	+ 2.2	+ 2.9	+ 2.5	Dec	+ 4.8	Nov‡	12.1 Jan	10.9
Sweden	+ 1.6	+ 2.0 Q4	+ 1.9	+ 2.5	– 2.0	Dec	+ 4.3	Jan	5.1 Jan†	4.4
Switzerland	+ 1.4	+ 0.8 Q4	+ 0.9	+ 1.9	– 3.5	Q3	– 2.8	Dec	3.9 Feb†	2.6
United States	+ 1.4	+ 2.9 Q4	+ 2.5	+ 3.5	+ 2.0	Jan	+ 4.3	Jan	5.8 Feb	5.5
Euro area	+ 0.7	+ 1.3 Q4	+ 1.1	+ 2.2	– 0.5	Dec	– 1.9	Dec	8.6 Jan	8.1
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*									
Finland	+ 2.8	+ 2.8 Q4	na	na	+ 0.3	Jan	+ 2.0	Nov	9.5 Jan†	9.9
Greece	na	+ 3.5 Q4	na	na	+ 5.0	Dec	na		na	na
Iceland	na	+ 3.62001	na	na	+12.2	2001	na		3.8 Jan	2.4
Ireland	na	+ 6.9 Q3	na	na	– 6.6	Dec	– 0.4	Dec	4.5 Feb†	4.3
Luxembourg	na	+ 1.02001	na	na	+ 1.9	Nov	– 6.1	Oct	3.4 Dec†	2.7
New Zealand	+ 5.0	+ 5.0 Q3	na	na	+ 5.1	Q3	+ 7.3	Q4	4.9 Q4	5.4
Norway	– 0.9	+ 0.9 Q3	na	na	– 4.6	Jan	+ 2.7	Jan	3.7 Q4	3.3
Portugal	na	– 0.5 Q3	na	na	+ 0.8	Jan	+ 3.2	Jan	6.2 Q4†	4.2

*% change at an annual rate. †Not seasonally adjusted. ‡New series. ††Oct-Dec; claimant count rate 3.1% in Jan. §EU harmonised rate 8.7% in Feb. **Nov-Jan, new series

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Prices and wages

Mar 13th 2003
From The Economist print edition

% change on year ago

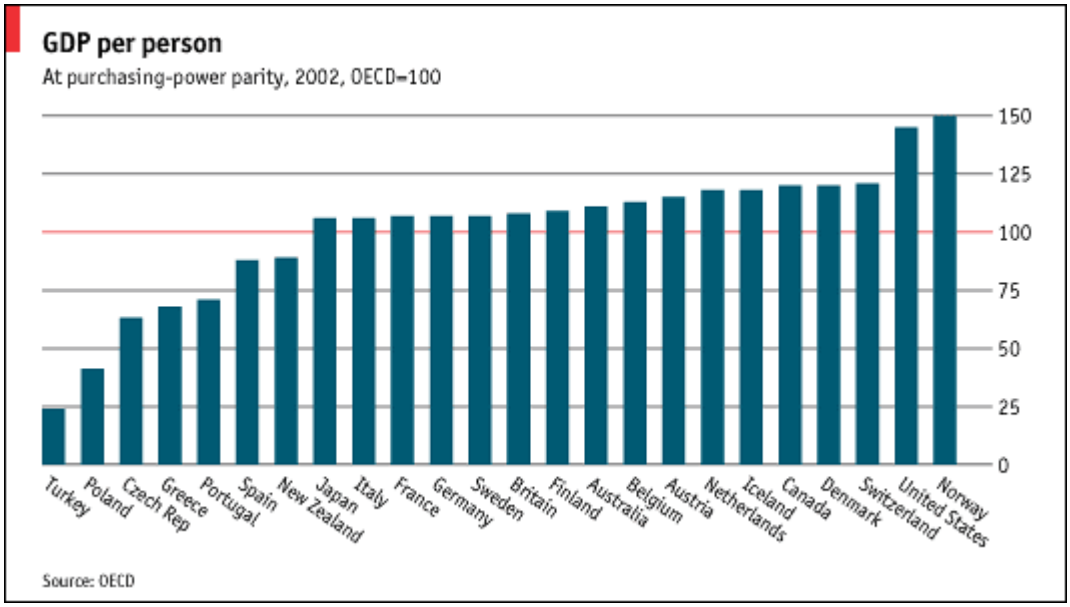
	Consumer prices			The Economist poll consumer prices forecast		Producer prices			Wages/earnings		
	latest		year ago	2003	2004	latest		year ago	latest		year ago
Australia	+ 3.0	Q4	+ 3.1	+ 2.7	+ 2.9	+ 1.6	Q4	– 0.7	+ 3.9	Q4	+ 4.9
Austria	+ 1.7	Jan	+ 2.1	+ 1.7	+ 1.5	+ 2.1	Feb	– 0.6	+ 2.2	Jan	+ 2.5
Belgium	+ 1.7	Feb	+ 2.6	+ 1.3	+ 1.5	+ 1.1	Jan	– 1.6	+ 2.2	Q4	+ 3.1
Britain	+ 2.9	Jan	+ 1.3	+ 2.6	+ 2.5	+ 1.6	Feb	– 0.2	+ 3.7	Dec	+ 3.4
Canada	+ 4.5	Jan	+ 1.3	+ 2.8	+ 2.3	+ 2.0	Jan	– 1.1	+ 2.1	Nov	+ 3.1
Denmark	+ 2.9	Feb	+ 2.5	+ 2.1	+ 1.9	+ 1.3	Jan	+ 0.6	+ 3.9	Q4	+ 4.1
France	+ 2.0	Jan	+ 2.2	+ 1.5	+ 1.4	+ 2.1	Jan	– 1.1	+ 3.5	Q3	+ 4.2
Germany	+ 1.3	Feb	+ 1.8	+ 1.0	+ 1.1	+ 1.2	Jan	+ 0.2	+ 2.7	Dec	+ 2.2
Italy	+ 2.6	Feb	+ 2.3	+ 2.3	+ 2.0	+ 1.5	Dec	– 1.3	+ 2.1	Dec	+ 2.8
Japan	– 0.4	Jan	– 1.4	– 0.6	– 0.5	– 1.0	Jan*	– 2.7	+ 0.5	Jan	– 2.7
Netherlands	+ 2.7	Feb	+ 3.7	+ 2.5	+ 2.2	+ 4.3	Jan	– 1.9	+ 3.0	Jan	+ 4.3
Spain	+ 3.8	Feb	+ 3.1	+ 3.0	+ 2.7	+ 2.6	Jan	nil	+ 3.8	Q3	+ 3.6
Sweden	+ 2.8	Jan	+ 2.9	+ 2.2	+ 2.1	– 0.2	Jan	– 0.5	+ 4.0	Dec	+ 3.2
Switzerland	+ 0.9	Feb	+ 0.6	+ 0.7	+ 1.0	– 0.2	Jan	– 1.4	+ 2.5	2001	+ 1.3
United States	+ 2.6	Jan	+ 1.1	+ 2.2	+ 1.9	+ 2.8	Jan	– 2.7	+ 3.2	Feb	+ 3.5
Euro area	+ 2.3	Feb	+ 2.5	+ 1.7	+ 1.6	+ 2.0	Jan	– 0.8	+ 3.3	Q3	+ 3.0
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*										
Finland	+ 1.4	Jan	+ 2.3	na	na	+ 1.4	Dec	– 2.7	+ 3.3	Q4	+ 4.5
Greece	+ 4.3	Feb	+ 3.4	na	na	+ 0.5	Jan	+ 5.2	na		na
Iceland	+ 1.5	Feb	+ 8.9	na	na	+ 3.5	Mar	+ 9.6	+ 5.5	Jan	+10.0
Ireland	+ 4.8	Jan	+ 4.9	na	na	– 0.6	Dec	+ 0.2	+ 6.2	Q3	+ 8.1
Luxembourg	+ 2.5	Feb	+ 2.3	na	na	+ 1.2	Dec	– 2.0	+ 3.5	Nov	+ 4.2
New Zealand	+ 2.7	Q4	+ 1.8	na	na	– 0.9	Q4	+ 1.8	+ 2.1	Q4	+ 2.2
Norway	+ 4.8	Feb	+ 0.8	na	na	+11.9	Feb	–11.5	+ 5.2	Q4	+ 4.4
Portugal	+ 4.0	Jan	+ 3.5	na	na	+ 2.3	Jan	– 0.5	+ 0.4	Jan	+ 1.3

*Revised series.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

GDP per person

Mar 13th 2003
From The Economist print edition



Living standards, measured by GDP per head, vary widely even within the OECD group of 30 countries. Within the European Union, most countries are clustered just above the OECD average: the main difference is between poorer southern and richer northern countries. The comparisons use purchasing-power-parity exchange rates to strip out cost-of-living differences and avoid sharp fluctuations in market exchange rates.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Money and interest rates

Mar 13th 2003
From The Economist print edition

	Money supply* % change on year ago			Interest rates % p.a. (Mar 12th 2003)					
				3-mth money market		2-year	10-year gov't bonds		corporate
	narrow	broad		latest	year ago	gov't bonds	latest	year ago	bonds
Australia	– 9.7	+10.4	Jan	4.76	4.36	4.32	5.07	6.40	6.12
Britain	+ 5.1	+ 6.4	Jan	3.63	4.06	3.14	4.06	5.21	5.86
Canada	+ 6.7	+ 4.9	Jan	2.96	2.19	3.55	4.87	5.69	6.76
Denmark	+ 7.4	+ 9.1	Jan	2.73	3.70	2.56	4.03	5.33	6.79
Japan	+21.3	+ 2.0	Feb	0.02	0.07	0.04	0.70	1.45	0.84
Sweden	– 0.1	+ 4.3	Dec	3.40	4.05	3.36	4.30	5.56	3.81
Switzerland	+13.2	+ 8.0	Jan	0.32	1.73	0.41	2.07	3.60	3.25
United States	+ 2.9	+ 6.2	Jan	1.14	1.88	1.43	3.59	5.26	5.86
Euro area†	+ 9.8	+ 7.4	Jan	2.54	3.37	2.25	3.80	5.11	4.36

*Narrow: M1 except Britain and Sweden M0, broad: M2 or M3 except Britain M4. † Germany for bonds. Benchmarks: US 30-year 4.74%, Japan No.247 0.71%. Central bank rates: US fed funds 1.25%, ECB refinancing 2.50%, BOJ overnight call 0.001%, BOE repo 3.75%. Sources: Commerzbank, Danske Bank, J.P. Morgan Chase, Royal Bank of Canada, Stockholmsbörsen, UBS Warburg, Global Insight, Westpac, Thomson Datastream. Rates cannot be construed as banks' offers.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

The Economist commodity price index

Mar 13th 2003
From The Economist print edition

1995=100

	Mar 4th	Mar 11th*	% change on one month	% change on one year
Dollar index				
All items	78.5	77.5	– 2.8	+10.8
Food	79.6	78.7	– 4.1	+12.0
Industrials				
All	77.0	75.9	– 1.1	+ 9.1
Nfa†	79.8	79.4	– 0.6	+14.7
Metals	74.6	73.0	– 1.6	+ 4.4
Sterling index				
All items	78.3	76.1	– 2.2	– 2.7
Euro index				
All items	94.7	92.2	– 5.9	–12.5
Yen index				
All items	98.4	96.4	– 6.5	+ 0.6
Gold				
$ per oz	353.50	350.75	– 3.4	+19.6
West Texas Intermediate				
$ per barrel	36.89	36.70	+ 3.5	+50.7

* Provisional. † Non-food agriculturals.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Stockmarkets

Mar 13th 2003
From The Economist print edition

Market indices

	Mar 12th	2003 high	2003 low	% change on one week	% change on record high	% change on Dec 31st 2002 in local currency	% change on Dec 31st 2002 in $ terms
Australia (All Ordinaries)	2,687.1	3,049.6	2,687.1	- 2.3	-21.9	- 9.7	- 4.7
Austria (ATX)	1,120.2	1,187.8	1,120.2	- 3.4	-35.5	- 2.6	+ 2.3
Belgium (Bel 20)	1,426.6	2,074.1	1,426.6	-11.3	-61.3	-29.6	-26.0
Britain (FTSE 100)	3,287.0	4,009.5	3,287.0	- 7.8	-52.6	-16.6	-16.5
Canada (Toronto Composite)	6,228.6	6,837.3	6,228.6	- 2.5	-45.3	- 5.8	+ 0.8
Denmark (KBX)	145.0	173.2	145.0	- 2.7	-51.9	-12.8	- 8.4
France (SBF 250)	1,630.1	2,144.8	1,630.1	- 8.6	-62.9	-20.6	-16.6
(CAC 40)	2,403.0	3,210.3	2,403.0	- 9.5	-65.3	-21.6	-17.6
Germany (DAX)	2,203.0	3,157.3	2,203.0	-11.8	-72.7	-23.8	-20.0
Italy (BCI)	959.4	1,142.4	959.4	- 8.1	-56.0	-12.1	- 7.7
Japan (Nikkei 225)	7,943.0	8,790.9	7,862.4	- 6.3	-79.6	- 7.4	- 6.3
(Topix)	782.4	865.4	760.1	- 4.9	-72.9	- 7.2	- 6.1
Netherlands (AEX)	218.4	337.3	218.4	-13.8	-68.9	-32.3	-28.9
Spain (Madrid SE)	576.8	683.8	576.8	- 6.7	-49.7	- 9.0	- 4.4
Sweden (Affarsvarlden Gen)	127.8	153.4	127.8	- 5.4	-68.1	-12.0	- 9.1
Switzerland (Swiss Market)	3,675.4	4,965.3	3,675.4	- 7.3	-56.3	-20.6	-17.6
United States (DJIA)	7,552.1	8,842.6	7,524.1	- 2.9	-35.6	- 9.5	- 9.5
(S&P 500)	804.2	931.7	800.7	- 3.1	-47.4	- 8.6	- 8.6
(NASDAQ Comp)	1,278.9	2,359.5	1,271.5	- 2.7	-74.7	- 4.2	- 4.2
Europe (FTSE Eurotop 300)*	682.7	890.8	682.7	- 8.5	-60.0	-20.3	-16.3
Euro area (FTSE Ebloc 100)*	565.7	757.2	565.7	- 9.9	-63.5	-21.3	-17.3
World (MSCI)†	710.8	830.7	710.8	- 4.7	-50.9	na	-10.3
World bond market (Salomon)‡	550.0	551.7	518.6	+ 0.4	- 0.3	na	+ 4.7

*In euro terms. †Morgan Stanley Capital International index includes individual markets listed above plus eight others, in dollar terms. ‡Salomon Smith Barney World Government Bond Index, total return, in $ terms.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Trade, exchange rates and budgets

Mar 13th 2003
From The Economist print edition

	Trade balance*, $bn latest 12 months		Current account $bn latest 12 mths		The Economist poll % of GDP, forecast 2003	2004	Exchange rate trade weighted† 1990=100 Mar 12th	year ago	Currency units per $ Mar 12th	year ago	per £	per euro	per ¥100	Budget balance % of GDP 2002‡
Australia	- 6.0	Jan	- 17.7	Q4	- 4.3	- 3.8	75.6	74.3	1.69	1.92	2.71	1.85	1.44	0.1
Austria	+ 3.4	Dec	+ 0.8	Dec	- 0.7	- 1.4	101.7§	100.3	0.91	1.14	1.46	-	0.77	-1.6
Belgium	+ 17.9	Dec	+ 12.8	Sep	- 4.9	+ 5.0	101.4§	99.0	0.91	1.14	1.46	-	0.77	ni.
Britain	- 53.6	Jan	- 20.5	Q3	- 1.9	- 1.8	100.9	104.8	0.67	0.71		0.68	0.48	1.4
Canada	+ 34.7	Jan	+ 11.3	Q4	+ 1.9	+ 2.0	79.5	76.0	1.49	1.59	2.38	1.63	1.26	0.6
Denmark	+ 8.0	Dec	+ 5.3	Dec	- 2.0	+ 1.7	105.6	104.9	6.74	8.49	10.9	7.41	5.75	2.2
France	+ 9.0	Jan	+ 26.3	Dec	- 1.7	+ 1.9	104.5§	104.6	0.91	1.14	1.46	-	0.77	-2.7
Germany	+121.0	Jan	+ 48.3	Jan	- 1.7	+ 1.9	101.8§	98.4	0.91	1.14	1.46	-	0.77	3.7
Italy	- 9.6	Dec	- 6.4	Dec	- 0.2	- 0.1	74.6§	72.5	0.91	1.14	1.46	-	0.77	-2.3
Japan	+ 93.6	Jan	+111.4	Jan	- 2.7	+ 2.9	132.0	131.2	117	129	189	129	-	-7.9
Netherlands	+ 29.0	Dec	+ 9.1	Q4	- 3.1	+ 3.2	100.7§	97.9	0.91	1.14	1.46	-	0.77	-3.8
Spain	- 43.0	Nov	- 15.3	Nov	2.1	2.0	96.0§	94.7	0.91	1.14	1.46		0.77	ni.
Sweden	- 15.0	Jan	- 6.9	Dec	+ 3.9	+ 3.9	78.6	76.3	8.43	10.4	13.6	9.29	7.19	1.7
Switzerland	+ 4.1	Jan	+ 29.8	Q3	+10.6	+11.5	116.9	112.3	1.33	1.68	2.15	1.47	1.14	1.8
United States	-495.6	Jan	-462.2	Q3	- 5.1	- 4.0	106.0	122.6	-	-	1.61	1.10	0.85	-3.1
Euro area	+ 97.7	Nov	+ 60.7	Dec	- 0.9	+ 0.8	87.6	88.9	0.91	1.14	1.46		0.77	2.7
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*													
Finland	+ 13.2	Dec	+ 10.3	Dec	na	na	80.4§	78.2	0.91	1.14	1.47	-	0.78	3.2
Greece	- 21.5	Dec	- 9.3	Dec	na	na	98.7§	97.5	0.91	1.14	1.47	-	0.78	-1.1
Iceland	+ 0.1	Jan	nil	Q3	na	na	95.0**	80.4	77.1	100.8	124	85.0	65.8	0.5
Ireland	+ 36.0	Dec	+ 0.1	Q3	na	na	91.6§	87.2	0.91	1.14	1.47	-	0.78	-0.5
Luxembourg	- 3.1	Dec	+ 2.1	Q3	na	na	101.4§	99.0	0.91	1.14	1.47	-	0.78	1.8
New Zealand	- 3.6	Jan	- 1.7	Q3	na	na	95.0	83.5	1.82	2.35	2.93	2.01	1.55	1.6
Norway	+ 25.8	Jan	+ 25.9	Dec	na	na	101.6	98.4	7.13	8.86	11.5	7.86	6.08	12.4
Portugal	- 12.8	Dec	- 6.9	Dec	na	na	91.3**	86.9	0.91	1.14	1.47	-	0.78	-3.4

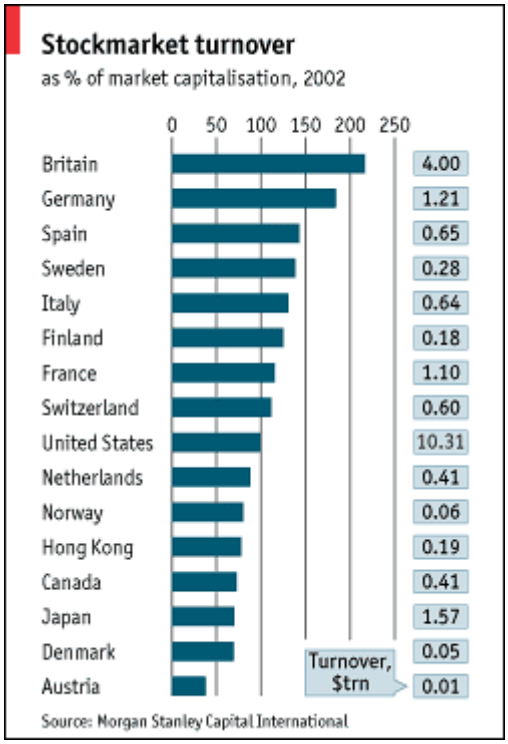
*Merchandise. Australia, Britain, France, Canada, Japan and United States' imports fob, exports fob. All others cif/fob. †Bank of England except §IMF, January average. ‡OECD estimate. **EMF, November average.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

About sponsorship

Stockmarket turnover

Mar 13th 2003
From The Economist print edition



Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Overview

Mar 13th 2003
From The Economist print edition

Asian economies are proving resilient despite worries about global prospects. In **China**, industrial production leapt by 19.8% in the 12 months to February. Industrial output rose by 6.4% in **India** in the 12 months to January. In **Hong Kong**, GDP grew by 5% in the year to the fourth quarter of 2002.

Fears that **Argentina** might relapse into hyperinflation are receding. Consumer-price inflation slackened to 36.1% in the 12 months to February.

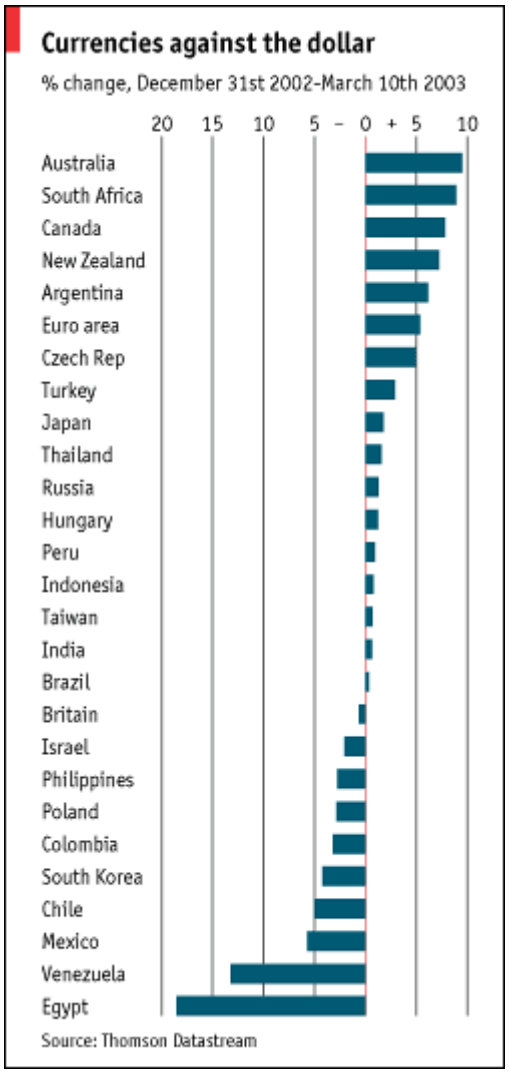
Turkey's recovery continues. Industrial output rose by 13.2% in the year to January.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Currencies against the dollar

Mar 13th 2003
From The Economist print edition

The Australian dollar has experienced the biggest appreciation against the American dollar this year of all the currencies in the chart. The countries with the next three biggest rises are also big commodity producers: South Africa, Canada and New Zealand. But not every currency is climbing against the American dollar. The Egyptian pound and the Venezuelan bolivar have fallen by 19% and 13% respectively. Egypt's government floated the pound in January, but its foreign-exchange reserves continue to dwindle.



Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Economy

Mar 13th 2003
From The Economist print edition

	% change on year ago						Latest 12 months, $bn				Foreign reserves* $bn, latest	
	GDP		Industrial production		Consumer prices		Trade balance		Current account			
China	+ 8.1	Q4	+19.8	Feb	+ 0.2	Feb	+23.9	Feb	+17.4	2001	269.9	Oct
Hong Kong	+ 5.0	Q4	– 7.2	Q3	– 1.6	Jan	– 6.9	Jan	+16.5	Q3	113.7	Feb
India	+ 5.8	Q3	+ 6.4	Jan	+ 3.4	Jan	– 7.9	Jan	+ 4.5	Q3	69.9	Jan
Indonesia	+ 3.8	Q4	+ 7.1	Dec‡	+ 7.3	Feb	+25.7	Jan	+ 7.5	Q3	31.1	Jan
Malaysia	+ 5.6	Q4	+ 1.0	Jan	+ 1.7	Jan	+13.9	Jan	+ 6.6	Q3	34.5	Feb
Philippines	+ 5.8	Q4	– 5.0	Dec	+ 3.1	Feb	+ 1.6	Dec	+ 6.1	Sep	13.1	Feb
Singapore	+ 2.7	Q1	+13.5	Jan	+ 0.9	Jan	+ 9.8	Jan	+18.7	Q4	83.6	Feb
South Korea	+ 5.8	Q3	+ 3.6	Jan	+ 3.9	Feb	+ 9.3	Feb	+ 5.6	Jan	122.8	Jan
Taiwan	+ 4.2	Q4	+ 8.5	Jan	– 1.5	Feb	+16.2	Feb	+25.8	Q4	166.3	Feb
Thailand	+ 6.0	Q3	+13.0	Jan	+ 1.9	Feb	+ 4.6	Jan	+ 8.0	Jan	38.9	Jan
Argentina	–10.1	Q3	+13.1	Jan	+36.1	Feb	+15.9	Jan	+ 7.0	Q3	9.5	Jan
Brazil	+ 3.4	Q4	+ 5.5	Dec	+14.5	Jan	+15.0	Feb	– 6.3	Jan	38.6	Jan
Chile	+ 1.8	Q3	+ 2.8	Jan	+ 3.8	Feb	+ 2.5	Jan	– 0.6	Q4	16.4	Jan
Colombia	+ 2.0	Q4	+ 0.6	Nov	+ 7.2	Feb	nil	Nov	– 1.5	Q3	10.9	Feb
Mexico	+ 1.9	Q4	+ 1.7	Dec	+ 5.5	Feb	– 7.6	Jan	–14.5	Q4	51.5	Jan
Peru	+ 6.3	Dec	+11.7	Dec	+ 2.8	Feb	+ 0.3	Dec	– 1.1	Q4	9.3	Jan
Venezuela	–16.7	Q4	–10.5	Oct	+38.7	Feb	+13.9	Q4	+ 7.6	Q4	8.6	Dec
Egypt	+ 3.1	2002†	+ 4.2	2002†	+ 3.0	Dec	– 7.8	Nov	+ 0.1	Q3	13.2	Dec
Israel	+ 1.3	Q4	+ 1.3	Dec	+ 5.6	Jan	– 5.5	Feb	– 2.1	Q4	23.4	Feb
South Africa	+ 3.0	Q4	+ 1.5	Jan	+13.7	Jan	+ 3.9	Jan	nil	Q3	5.6	Jan
Turkey	+ 7.9	Q3	+13.2	Jan	+27.0	Feb	–15.7	Dec	+ 0.1	Nov	29.2	Jan
Czech Republic	+ 1.5	Q3	+ 6.4	Jan	– 0.4	Feb	– 2.3	Jan	– 4.2	Q3	24.4	Feb
Hungary	+ 3.7	Q4	+ 4.7	Jan	+ 4.5	Feb	– 3.0	Dec	– 2.7	Dec	15.3	Jan
Poland	+ 1.6	Q3	+ 4.2	Jan	+ 0.4	Jan	–10.3	Jan	– 6.5	Jan	29.3	Jan
Russia	+ 4.3	Q3	+ 4.9	Jan	+14.8	Feb	+48.2	Jan	+30.3	Q3	49.3	Feb
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Pakistan	+ 3.6	2002†	+15.8	Nov	+ 3.4	Jan	– 1.4	Feb	+ 2.7	2002†	8.5	Jan
Saudi Arabia	+ 1.2	2001	na		– 0.7	Nov	+39.2	2001	+ 9.4	2001	21.2	Jan

*Excluding gold, except Singapore; IMF definition. †Year ending June. ‡New series.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.

Financial markets

Mar 13th 2003
From The Economist print edition

	Currency units			Interest rates	Stockmarkets	% change on		
	per $		per £	short-term	Mar 12th		Dec 31st 2002	
	Mar 12th	year ago	Mar 12th	% p.a.		one week	in local currency	in $ terms
China	8.28	8.28	13.3	na	1,542.1	– 2.8	+ 8.7	+ 8.7
Hong Kong	7.80	7.80	12.6	1.31	8,875.0	– 2.6	– 4.8	– 4.8
India	47.6	48.7	76.7	5.60	3,110.1	– 3.6	– 7.9	– 7.2
Indonesia	8,893	9,975	14,336	12.34	387.2	– 1.0	– 8.9	– 8.3
Malaysia	3.80	3.80	6.13	3.10	629.1	– 2.2	– 2.7	– 2.7
Philippines	55.1	50.9	88.8	8.13	1,000.4	– 0.9	– 1.8	– 4.8
Singapore	1.75	1.83	2.82	0.69	1,233.7	– 2.5	– 8.0	– 8.6
South Korea	1,244	1,316	2,005	4.70	531.8	– 5.1	– 15.3	– 19.2
Taiwan	34.7	34.9	55.9	1.40	4,328.2	– 2.0	– 2.8	– 2.5
Thailand	42.7	43.3	68.8	1.71	352.4	– 2.1	– 1.1	– 0.2
Argentina	3.11	2.33	5.01	7.00	554.8	– 6.8	+ 5.7	+ 14.5
Brazil	3.48	2.34	5.60	26.25	10,538.0	+ 2.1	– 6.5	– 4.8
Chile	753	658	1,214	2.64	5,068.3	– 0.1	+ 1.0	– 3.4
Colombia	2,963	2,268	4,777	7.77	1,610.2	– 0.5	+ 0.1	– 3.2
Mexico	10.91	9.12	17.6	9.70	5,810.0	– 1.8	– 5.2	– 9.1
Peru	3.48	3.45	5.61	3.71	1,503.6	– 2.5	+ 8.0	+ 9.2
Venezuela	1,598	901	2,576	31.23	8,177.4	+ 0.3	+ 2.0	– 11.5
Egypt	5.76	4.63	9.28	9.30	5,799.7	– 3.8	+ 8.0	– 13.1
Israel	4.82	4.68	7.77	6.03	324.2	– 0.2	– 2.5	– 3.9
South Africa	8.0	11.6	12.9	13.55	7,769.7	– 5.1	– 16.3	– 10.4
Turkey	1,620,500	1,362,500	2,612,570	42.00	10,614.1	– 1.9	+ 2.4	+ 4.8
Czech Republic	28.7	36.1	46.3	2.34	463.7	– 0.1	+ 0.7	+ 5.4
Hungary	223	281	359	6.46	7,200.7	+ 1.5	– 7.7	– 6.8
Poland	3.99	4.15	6.44	6.18	13,820.5	+ 2.4	– 3.8	– 7.7
Russia	31.4	31.1	50.6	18.00	378.7	– 3.6	+ 3.7	+ 5.5
EMF (MSCI)*	1.00	1.00	1.61	na	269.7	– 3.1	na	– 7.7
EMBI+†	1.00	1.00	1.61	na	245.0	+ 1.0	na	+ 7.1

*Emerging Mkts Free. †J.P. Morgan Chase's Emerging Mkts Bond Index Plus. ‡ In $ terms.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank.

Copyright © 2006 The Economist Newspaper and The Economist Group. All rights reserved.